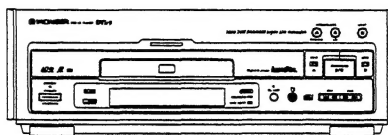


Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
RRV1783

DVD LD PLAYER **DVL-9**

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power requirement	Remarks
	DVL-9		
RL	○	AC110 - 120V / 220 - 240V	

• For the DVD section, refer to the service guide RRV1710 for DV-500.

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PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
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T - IZM APR. 1997 Printed in Belgium

1. SAFETY INFORMATION

VARO!

AVATTAESSA JA SUOJALUKITUS
OHITETTAESSA OLET ALTTIINA
NÄKYMÄTTÖMÄLLE LASERSÄTEIYLLE.
ÄLÄ KATSO SÄTEESEEN.



LASER
kuva 1
Lasersäteilyn
varoituserkki

ADVARSEL:

USYNLIG LASERSTRÅLING VED ÅBNING
NÅR SIKKERHED SAFBRYDERE ER UDE AF
FUNKTION. UNDGÅ UDSÆTTELSE FOR
STRÅLING.

WARNING!

OSYNLIG LASERSTRÅLNING NÄR DENNA
DEL ÄR ÖPPNAD OCH SPÄRREN
ÄR URKOPPLAD. BETRakta EJ STRÅLEN.

WARNING!

DEVICE INCLUDES LASER DIODE WHICH
EMITS INVISIBLE INFRARED RADIATION
WHICH IS DANGEROUS TO EYES. THERE IS
A WARNING SIGN ACCORDING TO PICTURE
1 INSIDE THE DEVICE CLOSE TO THE LASER
DIODE.



LASER
Picture 1
Warning sign for
laser radiation

IMPORTANT

THIS PIONNER APPARATUS CONTAINS
LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS
SHOULD BE DONE BY A SPECIALLY
INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER : 5 mw
WAVELENGTH : 780-785 nm

LABEL CHECK

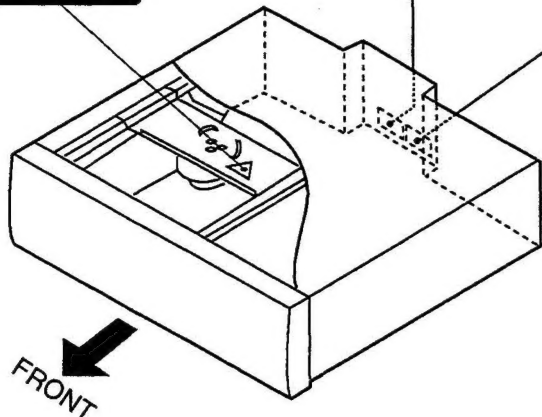
CAUTION

INVISIBLE LASER
RADIATION WHEN OPEN,
AVOID EXPOSURE
TO BEAM

PRW1018

CLASS 1
LASER PRODUCT

VRW-328



Additional Laser Caution

1. The ON/OFF statuses of the side-A/B detection switch (Lever switch connecting to the TNMB assy), slider-position detection switches (INNER and OUTER on the PKSB assy), loading-status detection switches (SW1, 2 and 3 on the LMSB assy), side B inside detection switch (S901 on the BISB assy) and CLD pickup active detection switch (S903 on the LCSB assy) are detected by the microprocessor (IC101 in the CLD MAIN assy). Also the DVD pickup active detection switch (S902 on the DCSB assy) is detected by the microprocessor (IC201 in the DVD MAIN assy).
 - To permit the laser diode of CLD pickup to oscillate, it is required to set the CLD pickup active detection switch (S903 : OFF) and the slider-position detection switches for the LD ACTIVE status (INNER : OFF, OUTER: OFF), and to set the loading-status detection switches for tilt neutral state (SW1 : ON, SW2 : OFF, SW3 : ON). As long as these requirements are not satisfied, the laser diode will not oscillate. When the requirements are met in any way, the laser diode can oscillate. The laser diode oscillation will continue if pin 13 of IC801 is shorted to GND or the emitter and collector of Q834 are shorted each other (fault condition) in the CLD MAIN assy.
 - To permit the laser diode of DVD pickup to oscillate, it is required to set the DVD pickup active detection switch (S902 :OFF) and each switch and a state of laser diode are contents same as state of CLD pickup mentioned above. The laser diode oscillation will continue if pin 5 of IC995 is shorted to +5V (fault condition) in the DVD MAIN assy. In the test mode *, the laser diode oscillates when the micro-processor detects a PLAY signal, or when the PLAY key is pressed (S204 ON in the KEYB assy), with the above requirements satisfied.
2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* : Refer to page 79.

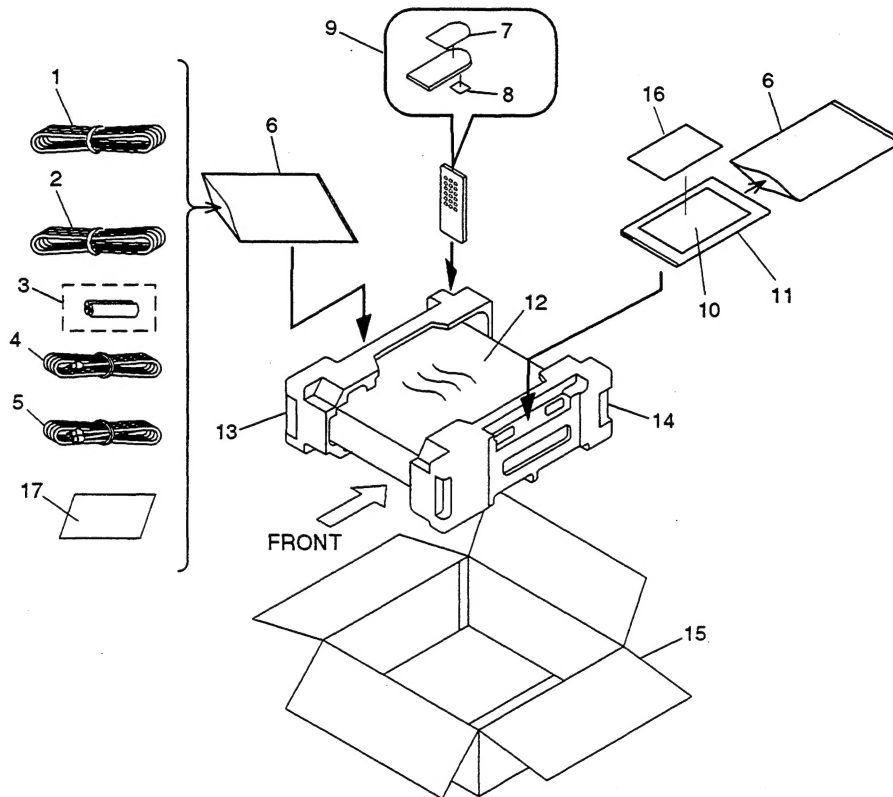
2. EXPLODED VIEWS AND PARTS LIST

NOTES : • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

• The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

• Screws adjacent to \blacktriangledown mark on the product are used for disassembly.

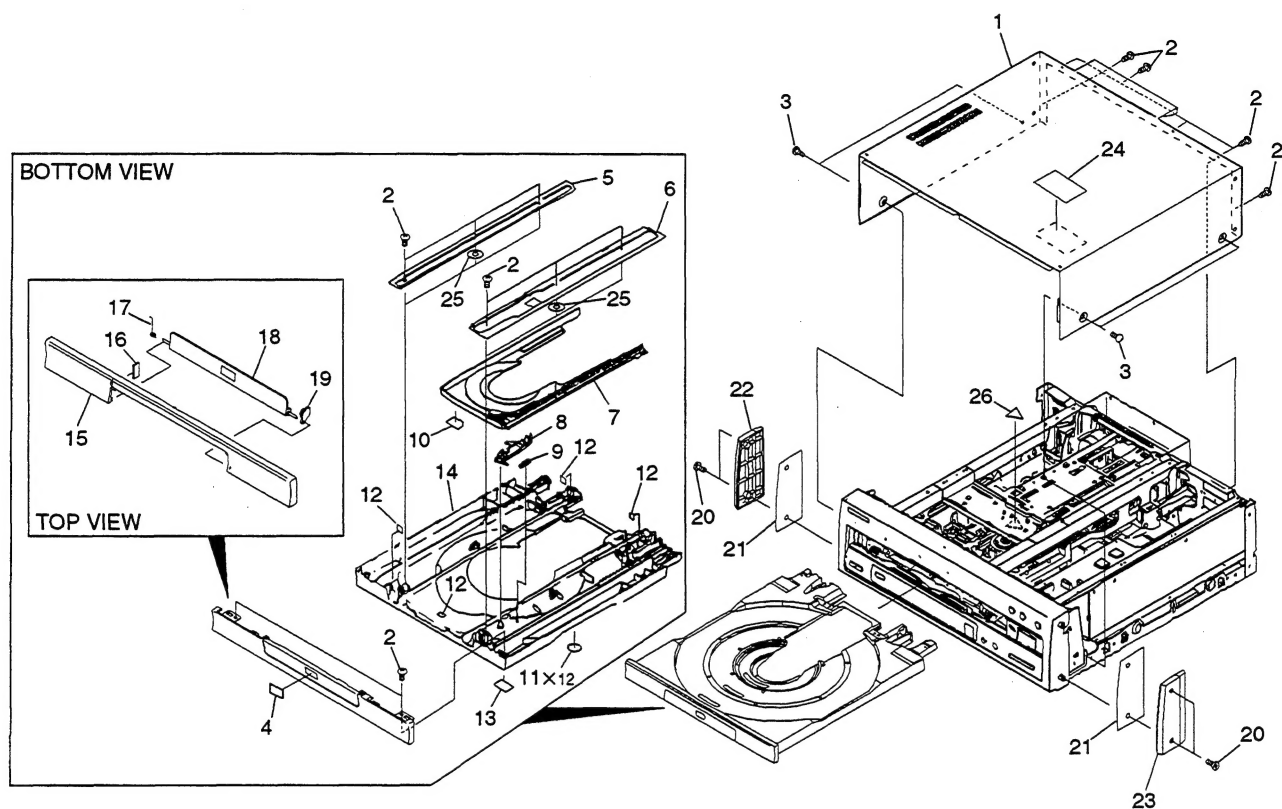
2.1 PACKING



Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
\triangle	1	Power Cord (Round Blade 2-Pin AC Plug)	ADG1154		9	Remote Control Unit (CU-DV002)	VXX2428
\triangle	2	Power Cord (Flat Blade 2-Pin AC Plug)	ADG1158	NSP	10	Warranty Card	ARW1020
NSP	3	Dry Cell Battery (R03,AAA)	VEM-022		11	Operating Instructions (English/Chinese)	VRD1065
	4	Video Cord	VDE1036		12	Mirror Mat	VHL1018
	5	Audio Cord	VDE1033		13	Pad L	VHA1195
	6	Polyethylene Bag	Z21-038		14	Pad R	VHA1196
	7	Upper Cover	VNK3941		15	Packing Case	VHG1640
	8	Battery Cover	VNK3920	NSP	16	Caution	VRM1067
				NSP	17	Caution	VRM1068

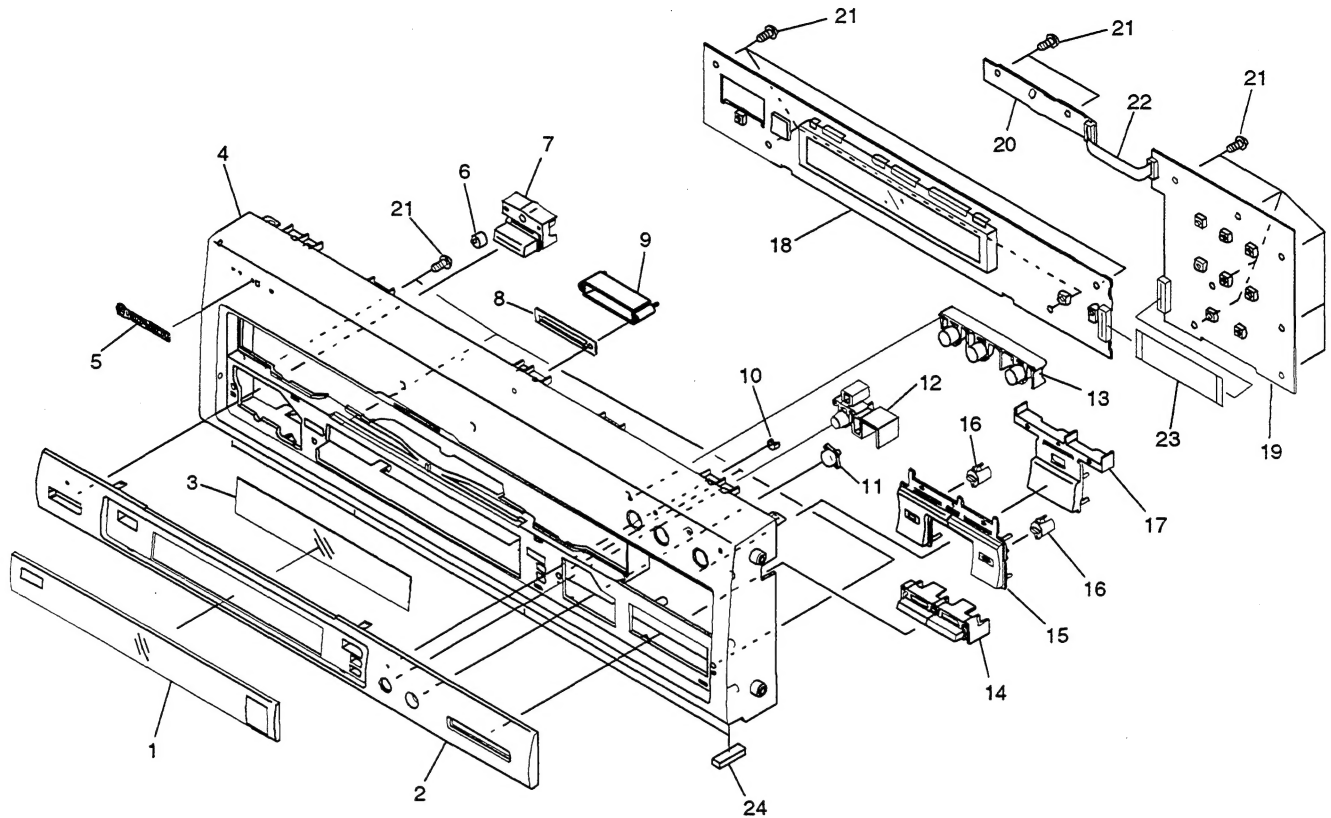
2.2 EXTERIOR SECTION



Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Bonnet Case S	VXX2483		14	LD Tray Assy	VXA2302
	2	Screw	BBZ30P080FMC		15	Tray Panel	VNK3606
	3	Screw	BCZ40P060FZK		16	Door Holder	VEC1904
	4	DVD Plate	VAM1066		17	Door Spring	VBH1248
	5	Guide Plate (R)	VNE1939		18	DVD Door Assy	VXA2273
	6	Guide Plate (L)	VNE1938		19	Damper Assy	VXA1999
	7	CD Tray	VNK3664		20	Screw	VBA1028
	8	Lock Plate	VNL1703		21	Side Spacer	VNK3860
	9	Lock Plate Spring	VBH1188		22	Side Panel L	VNK3679
	10	Tray Label	VRW1628		23	Side Panel R	VNK3680
	11	Cushion	VEC1881		24	Label (REGIONAL)	VRW1654
	12	Damp Cushion	VEC1683		25	Washer	VEC1254
NSP	13	Carry Label	VRW1289		26	Caution Label (G)	VRW-329

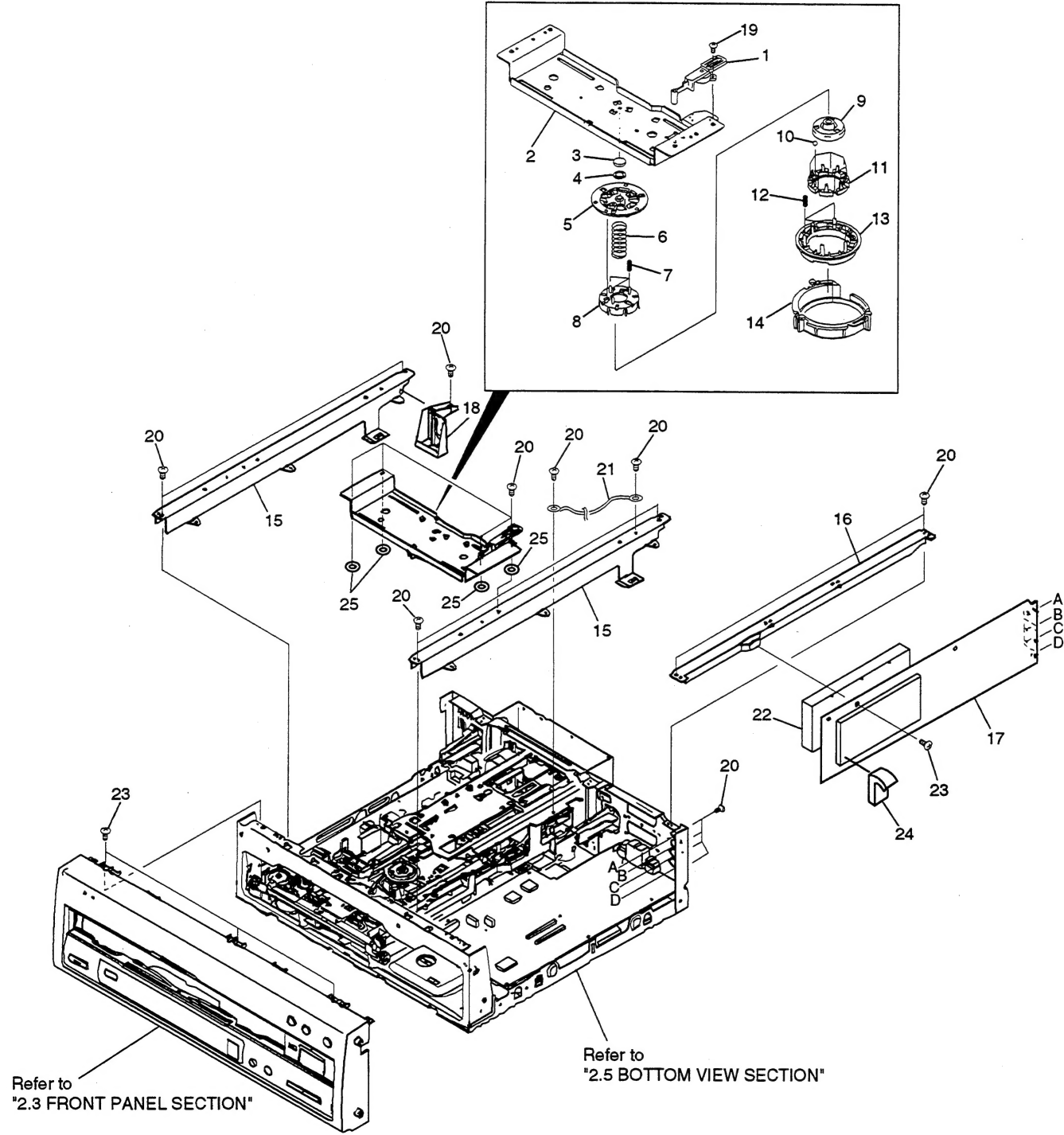
2.3 FRONT PANEL SECTION



Parts List

Mark	No. Description	Part No.	Mark	No. Description	Part No.
	1 FL Lens	VNK3599		13 Open Button	VNK3598
	2 Sub Panel	VNK3663		14 Skip Button	VNK3603
	3 FL Filter	VEC1891		15 Side Button	VNK3660
	4 Front Panel	VNK4027		16 Side Lens	VNK3602
	5 Name Plate	VAM1051		17 Play Button	VNK3600
	6 LED Lens	PNW2019		18 FLPB Assy	VWG1841
	7 Power Button	VNK3607		19 KEYB Assy	VWG1842
	8 Illumination Lens	VNK3652		20 LEDB Assy	VWG1832
	9 LED Holder	VNK4001		21 Screw	BBZ30P080FMC
	10 LED Lens 1	RNK2066		22 Flexible Cable (5P)	VDA1590
	11 IR Window	VNK2246		23 Flexible Cable (19P)	VDA1603
	12 Display Button	VNK3667	NSP	24 Spacer A	VEC1933

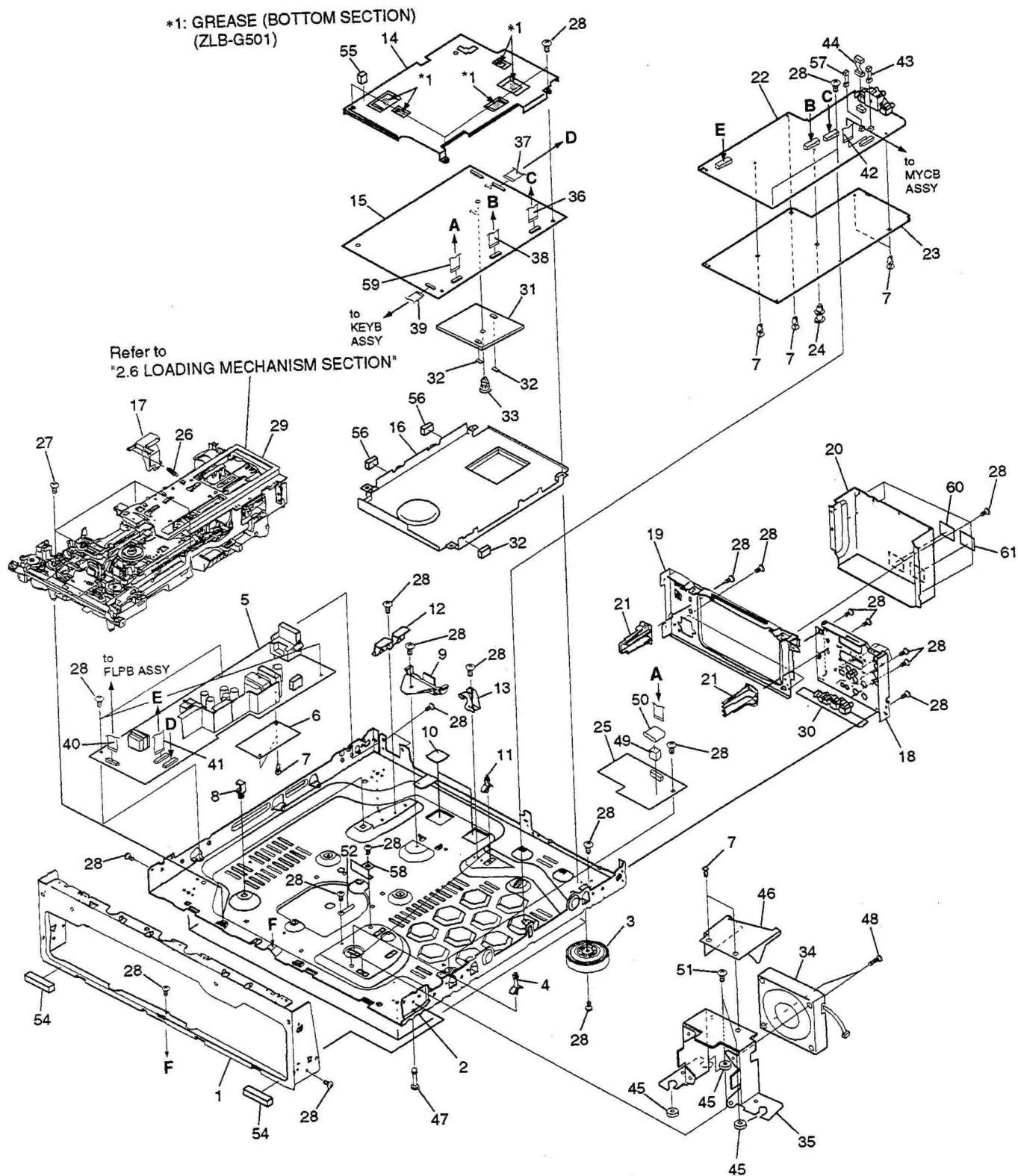
2.4 TOP VIEW SECTION



Parts List

Mark	No. Description	Part No.	Mark	No. Description	Part No.
	1 D Lever Assy	VXA2205		13 Clamper	VNL1604
	2 Center Plate	VNE2051		14 Clamper Holder	VNL1708
	3 Rubber Sheet	VEB1114	NSP	15 Center Angle	VNE2048
	4 Thrust Holder	VNL1663	NSP	16 PCB Holder	VNE2049
	5 Clamper Head	VNL1603		17 MGYCB Assy	VWV1468
	6 LD Spring	VBH1240		18 Shipping Cam	VNL1729
	7 Cover Spring	VBH1234		19 Screw	PBZ20P060FMC
	8 Ball Cover	VNL1602		20 Screw	BBZ30P080FMC
	9 LD Hab	VNT1047	NSP	21 Wire	DE007VF0
	10 Steel Ball	VNX1013		22 Shield Case B	VNF1099
	11 Ball Guide	VNL1616		23 Screw	IBZ30P080FMC
	12 Clamp Spring	VBH1239		24 Cushion	VEC1925
				25 Washer	VEC1952

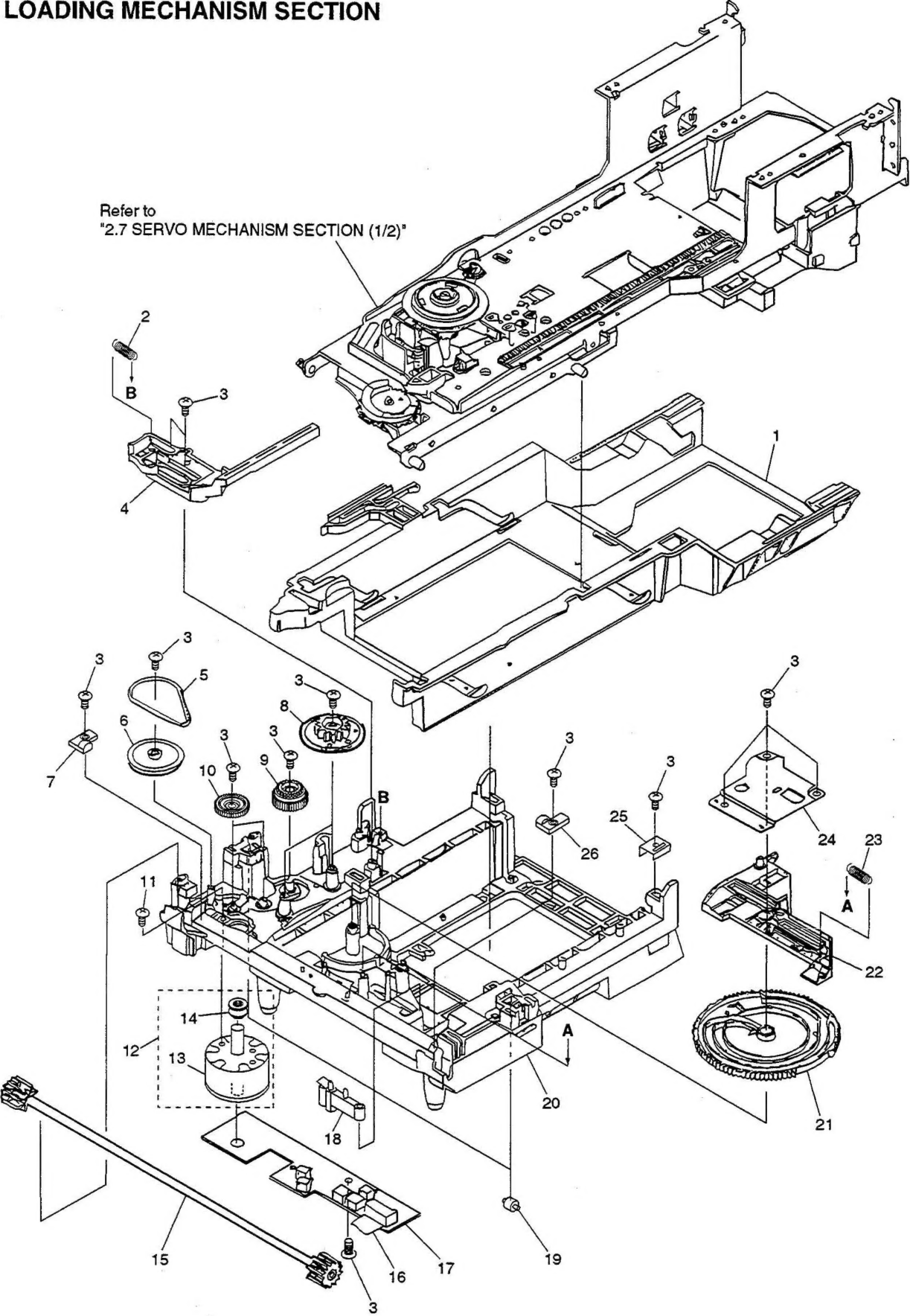
2.5 BOTTOM VIEW SECTION



Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	Panel Holder	VNA1686		31	FTSB Assy	VWS1291
NSP	2	Chassis	VNA1851	NSP	32	Spacer A	VEC1933
	3	Insulator	PNW1912		33	PCB Holder	AEC1534
NSP	4	Spacer 40	PNW2488		34	DC Fan Motor	VXM1070
△	5	POWER SUPPLY Assy	VWR1274		35	Fan Holder	VNE2108
	6	Sheet P	VEC1874		36	Flexible Cable (26P)	VDA1587
	7	Rivet	RBM-003		37	Flexible Cable (24P)	VDA1588
	8	PCB Hinge	VEC1174		38	Flexible Cable (30P)	VDA1586
NSP	9	Stopper	VNE2088		39	Flexible Cable (13P)	VDA1589
	10	Rubber Spacer	VEC1939		40	Flexible Cable (5P)	VDA1572
NSP	11	PCB Spacer	AEC1188		41	Flexible Cable (15P)	VDA1582
NSP	12	Cam Holder L	VNE2089		42	Flexible Cable (10P)	VDA1583
NSP	13	Cam Holder R	VNE2090		43	Housing Assy (2P)	VKP2138
	14	Shield Case (Upper)	VNF1093		44	Housing Assy (8P)	VKP2139
	15	DVD MAIN Assy	VWS1312		45	Rubber Bush	VEB1164
	16	Shield Case (Lower)	VNF1110	NSP	46	Fan Cover	VEC1921
	17	Shipping Lever	VNL1728	NSP	47	Locking Card Spacer	VEC1596
	18	Rear Panel L	VNA1807		48	Screw	IBZ30P150FMC
	19	Rear Panel R	VNA1684	NSP	49	Spacer B	VEC1934
	20	Rear Cover	VNA1812	△	50	Ferrite Core	VTH1038
	21	Tray Stopper	VNL1707		51	Screw	VBA1029
	22	CLD MAIN Assy	VWS1284	NSP	52	Cord Holder	ZCB-069Z
	23	Sheet C	VEC1875		53	• • • • •	
NSP	24	PCB Spacer	AEC1372	NSP	54	Cushion	VEC1923
	25	MCRB Assy	VWV1544	NSP	55	Spacer C	VEC1935
	26	Shipping Spring	VBH1275		56	Cushion	VEC1924
	27	Screw	BBZ30P100FMC		57	Housing Assy (2P)	VKP2142
	28	Screw	BBZ30P080FMC	NSP	58	PCB Angle	VNE2110
NSP	29	Mechanism Assy	VWT1132		59	Flexible Cable (26P)	VDA1621
	30	JCKB Assy	VWV1532		60	Caution Label	PRW1018
				NSP	61	Caution Label (F)	VRW-328

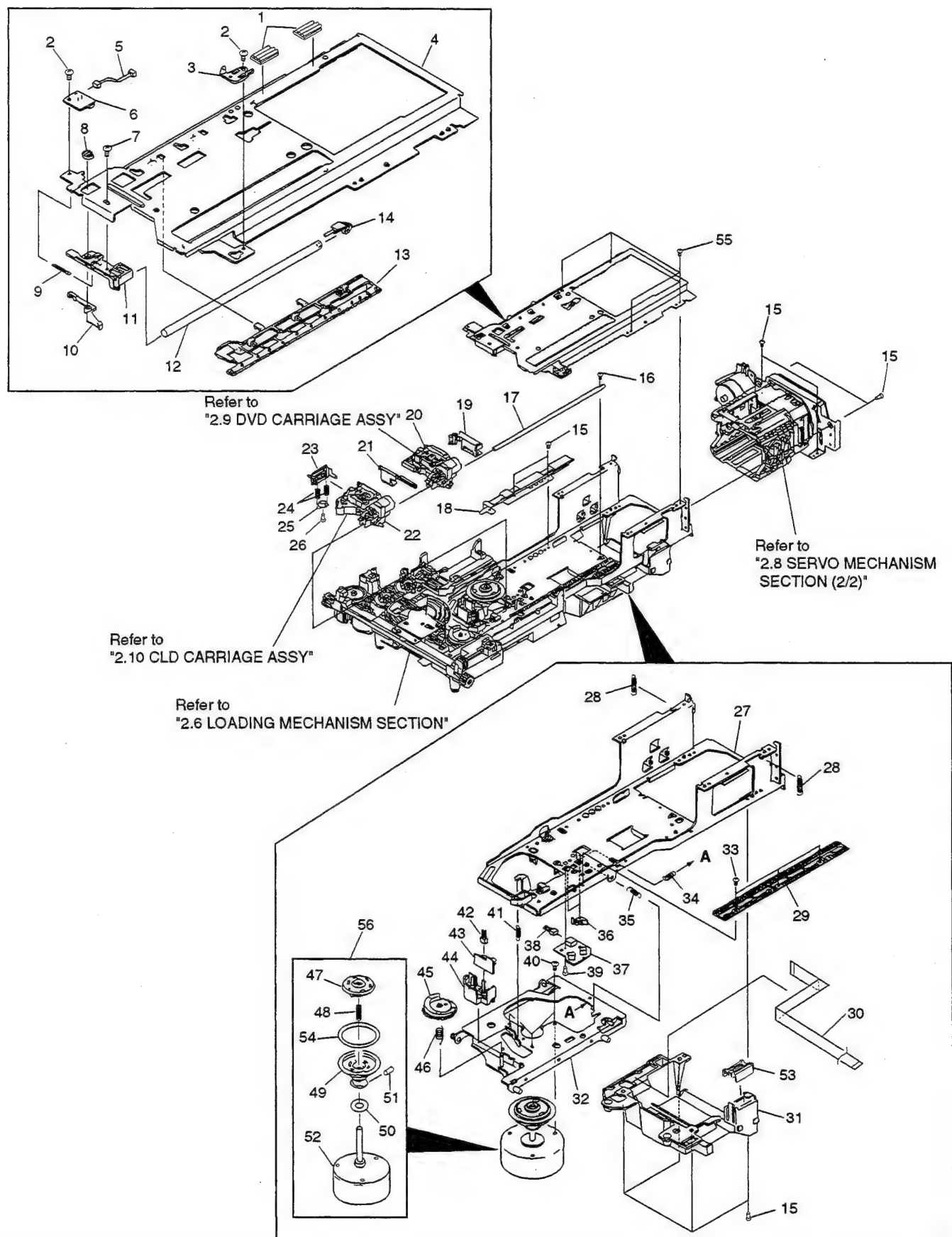
2.6 LOADING MECHANISM SECTION



Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Clamp Cam B	VNL1765		16	Flexible Cable (10P)	VDA1579
	2	CDP Spring	VBH1191	NSP	17	LMSB Assy	VWG1554
	3	Screw	Z39-019		18	MB Switch Lever	VNL1664
	4	CD Plate	VNL1685		19	Roller	VNL1042
	5	Rubber Belt	VEB1184		20	Mechanism Base	VNK3239
	6	Gear Pulley	VNL1662		21	Cam Gear	VNL1625
	7	Slider (L)	VNL1665		22	Cam Plate	VNL1631
	8	Twin Gear	VNL1626		23	CAS Spring	VBH1190
	9	Center Gear	VNL1660		24	Shaft Holder	VNE1942
	10	Double Gear	VNL1661		25	CAM Holder	VNE2032
	11	Screw	BMZ26P040FMC		26	Slider (R)	VNL1666
	12	Loading Motor Assy	VXX2045				
	13	Carriage Motor	VXM1033				
NSP	14	Motor Pulley	VNL1630				
	15	Synchro Gear Assy	VXA2105				

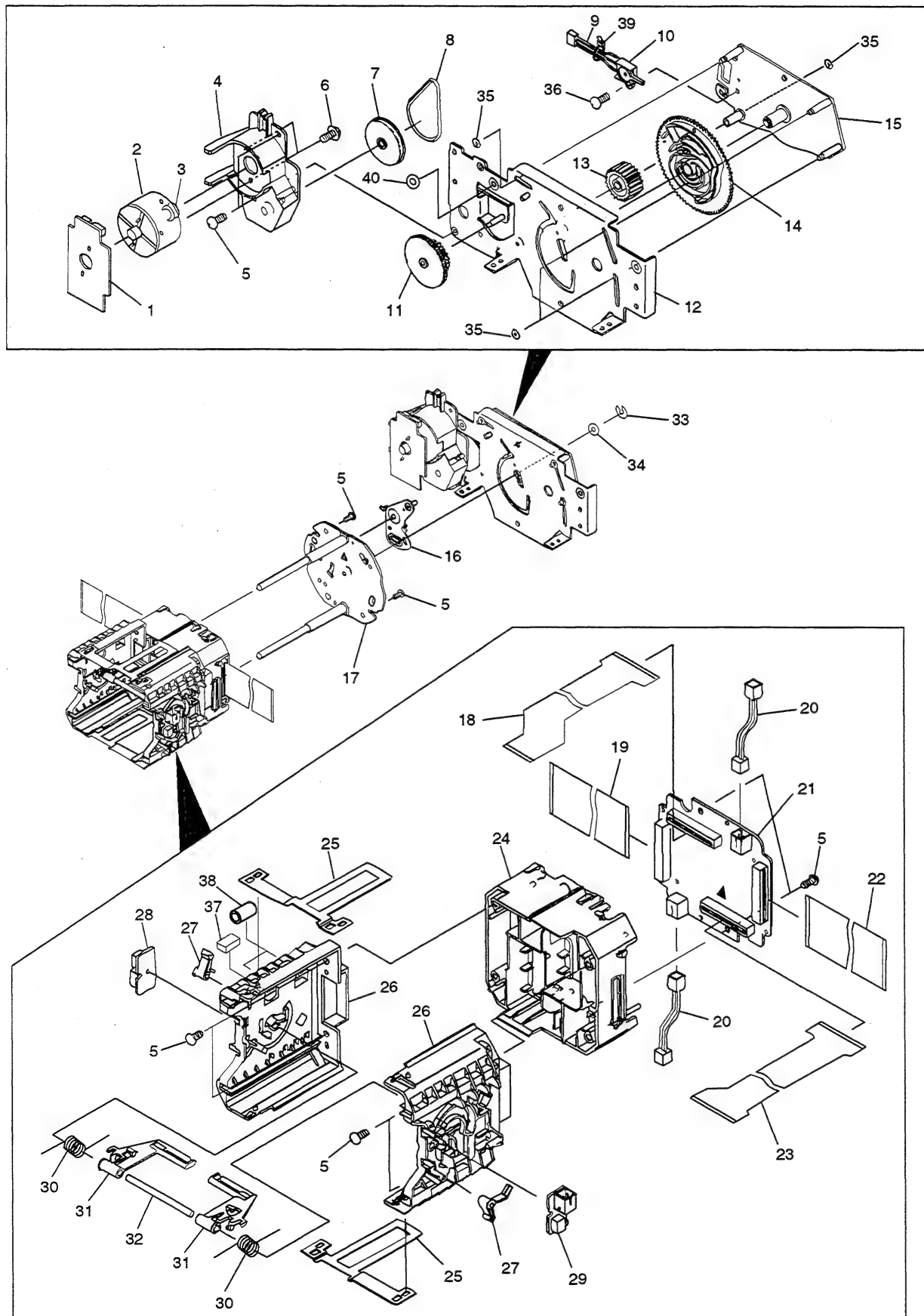
2.7 SERVO MECHANISM SECTION (1/2)



Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Mini Clamp	VEC1905		26	Screw	PMZ20P060FZK
	2	Screw	BBZ26P060FMC		27	Tilt Base (Under)	VNL1711
	3	A Horn	VNL1689		28	Tilt Rear Spring	VBH1274
	4	Tilt Base (Upper)	VNE2062		29	CA Rack (Lower)	VNL1712
	5	Housing Assy (2P)	VKP2136		30	Flexible Cable (6P)	VDA1578
NSP	6	BISB Assy	VWG1796		31	Flexible Cable Cover	VNL1727
	7	Screw	BPZ20P040FZK		32	Motor Base	VNE1941
	8	B Cam	VNL1725		33	Screw	IBZ26P060FMC
	9	Support Spring	VBH1273		34	Tilt Spring	VBH1263
	10	SW Lever B	VNL1723		35	Thrust Spring	VBH1245
	11	Shaft Holder	VNL1724		36	CA Switch Lever	VNL1644
	12	CA Shaft (Upper)	VLL1486	NSP	37	PKSB Assy	VWG1555
	13	CA Rack (Upper)	VNL1722		38	Housing Assy (3P)	VKP2045
	14	Shaft Stay	VNL1726		39	Screw	IBZ26P120FMC
	15	Screw	BBZ30P080FMC		40	Screw	PMA30P050FMC
	16	Screw	PPZ20P060FMC		41	Tilt Spring B	VBH1287
	17	CA Shaft (Lower)	VLL1485		42	Housing Assy (3P)	VKP2046
	18	TAN Guide	VNE2061	NSP	43	FG Assy	VWG1556
	19	FPC Holder A	VNL1751		44	FG Base	VNL1781
	20	DVD Carriage Assy	VWT1139		45	Tilt Cam	VNL1643
	21	FPC Holder B	VNL1752		46	Tilt Cam Spring	VBH1243
	22	CLD Carriage Assy	VWT1141		47	PRC Hub	VNL1684
	23	CA Guide	VNL1668		48	Centering Spring	VBH1269
	24	TAN Spring (B)	VBH1264	NSP	49	Turn Table Assy	VXA2285
	25	TAN Lever (B)	VNL1669	NSP	50	Oil Stopper	VBF1002
					51	Screw	ZMD30H030FBT
				NSP	52	Spindle Motor	VXM1057
					53	Cover S	VNL1780
				NSP	54	Rubber Sheet	VEB1272
					55	Screw	BBZ30P050FZK
					56	Spindle Motor Assy	VXX2521

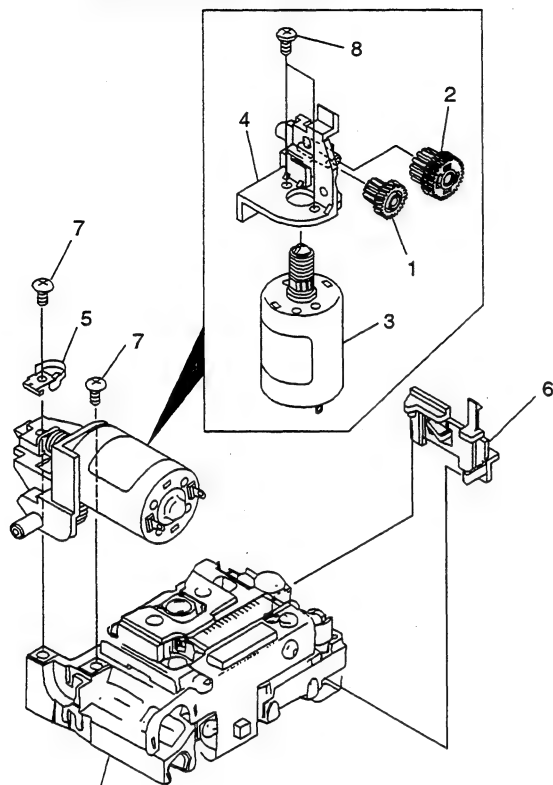
2.8 SERVO MECHANISM SECTION (2/2)



Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	TNMB Assy	VWG1793	NSP	21	CNNB Assy	VWG1792
	2	Carriage Motor	VXM1033		22	Flexible Cable (27P)	VDA1581
NSP	3	Motor Pulley	VNL1630		23	PU FPC-A	VNP1582
	4	Motor Holder	VNL1717		24	PCB Holder	VNL1716
	5	Screw	BBZ30P080FMC		25	FC Guide	VNE2059
	6	Screw	BMZ26P040FMC		26	PU Holder	VNL1715
	7	Gear Pulley	VNL1662		27	SW Lever C	VNL1714
	8	Rubber Belt	VEB1184	NSP	28	LCSB Assy	VWG1795
	9	Housing Assy (3P)	VKP2137	NSP	29	DCSB Assy	VWG1794
	10	Lever Switch	DSK1003		30	FC Arm Spring	VBH1272
	11	Middle Gear	VNL1720		31	FC Arm	VNL1713
	12	Turn Panel Assy	VXA2337		32	Tilt Shaft	VLL1175
	13	Gear S	VNL1719		33	E Ring	YE30FUC
	14	Turn Cam Gear	VNL1718		34	Washer	WA42D080D050
	15	Swing Plate Assy	VXA2289		35	Washer	WT26D070D050
	16	Turn Lever Assy	VXA2292		36	Screw	PMA26P060FMC
	17	Turn Plate Assy	VXA2290		37	Cushion	VEC1917
	18	PU FPC-B	VNP1583		38	Tube	VEB1273
	19	Flexible Cable (26P)	VDA1580		39	Binder	Z09-056
	20	Connector Assy	PG02KK-E10		40	Washer	VEC1951

2.9 DVD CARRIAGE ASSY

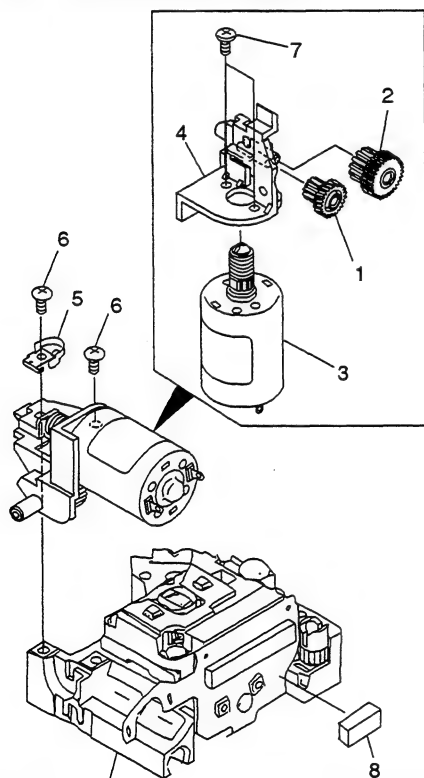


This part is no service part.

Parts List

Mark	No. Description	Part No.
	1 CA Gear (A)	VNL1782
	2 CA Gear B Assy	VXX2471
	3 Slider Motor Assy	VXX2472
	4 Motor Holder	VNL1779
	5 Thrust Holder	VBK1058
	6 CA Guide B	VNL1721
	7 Screw	BBZ20P050FZK
	8 Screw	PMZ20P030FMC

2.10 CLD CARRIAGE ASSY



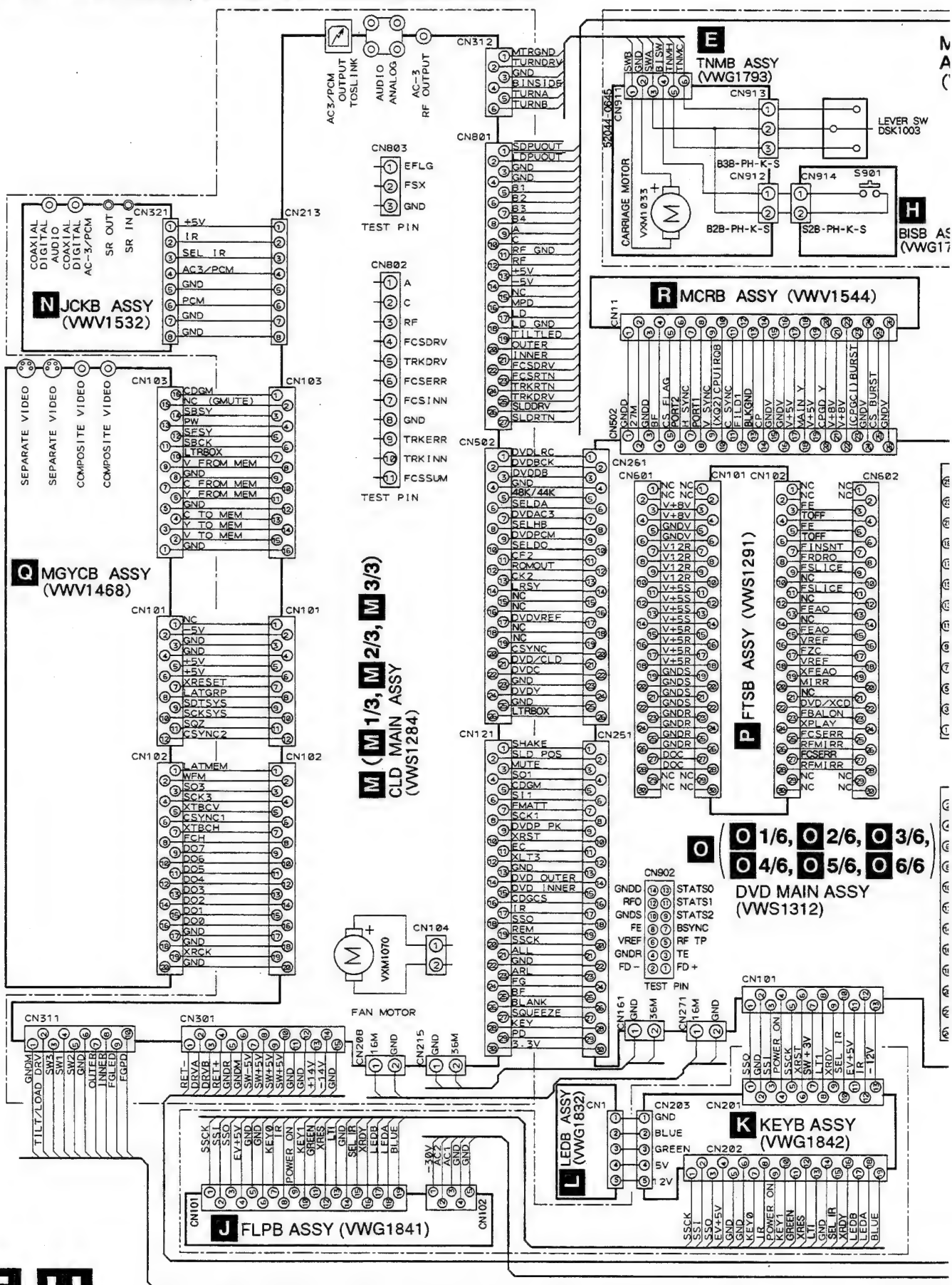
This part is no service part.

Parts List


Mark	No. Description	Part No.
	1 CA Gear (A)	VNL1782
	2 CA Gear (B)	VNL1639
	3 Slider Motor Assy	VXX2472
	4 Motor Holder	VNL1779
	5 Thrust Holder	VBK1058
	6 Screw	PBZ20P050FMC
	7 Screw	PMZ20P030FMC
	8 Cushion B	VEC1945

3. SCHEMATIC DIAGRAM

3.1 OVERALL WIRING DIAGRAM, LMSB, PKSB, FG, CNNB, TNMB, DCSB, LCSB AND BISB ASSEMBLIES



• NOTE FOR FUSE REPLACEMENT

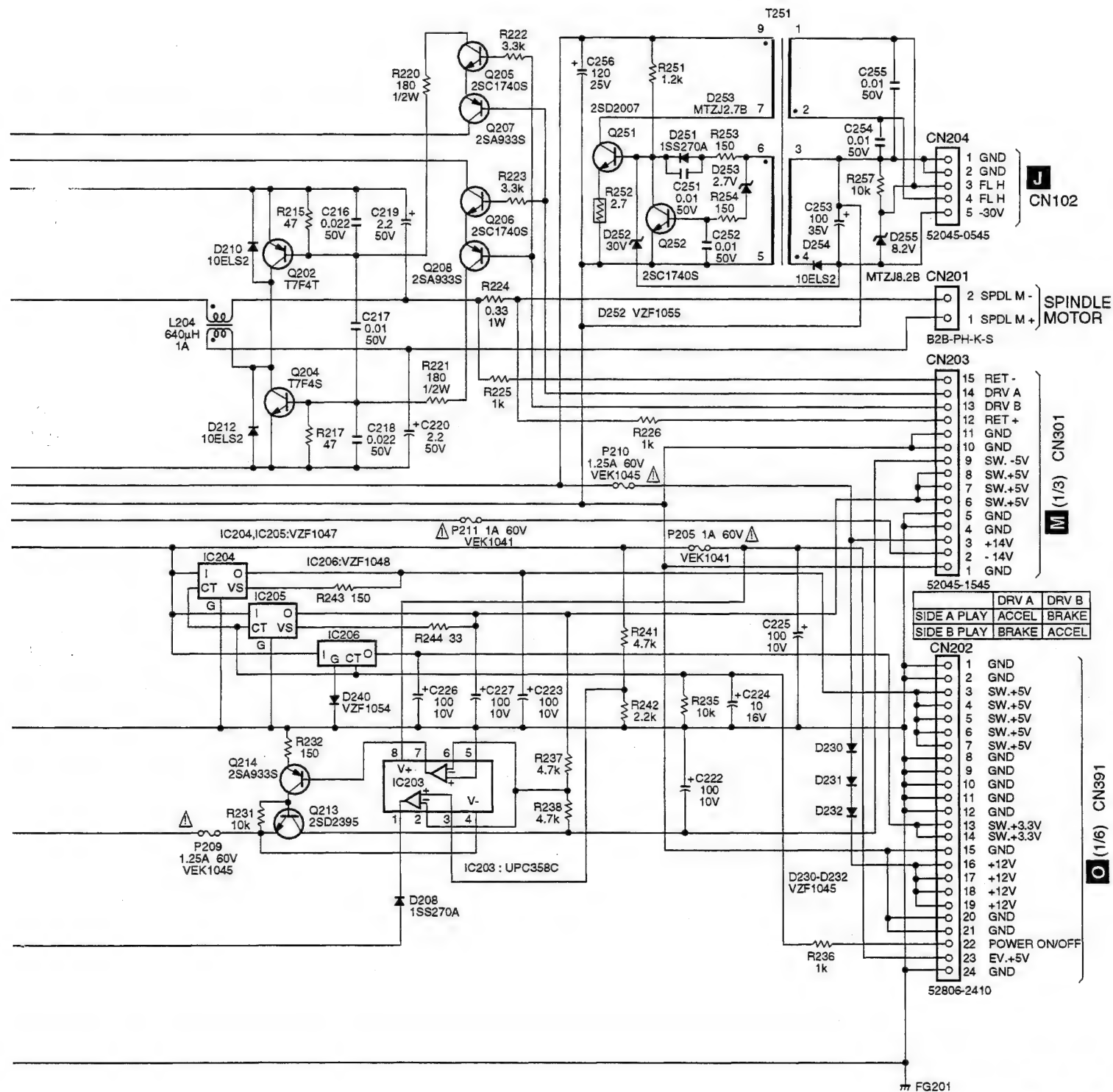
 POWER SUPPLY ASSY (VWR1274)



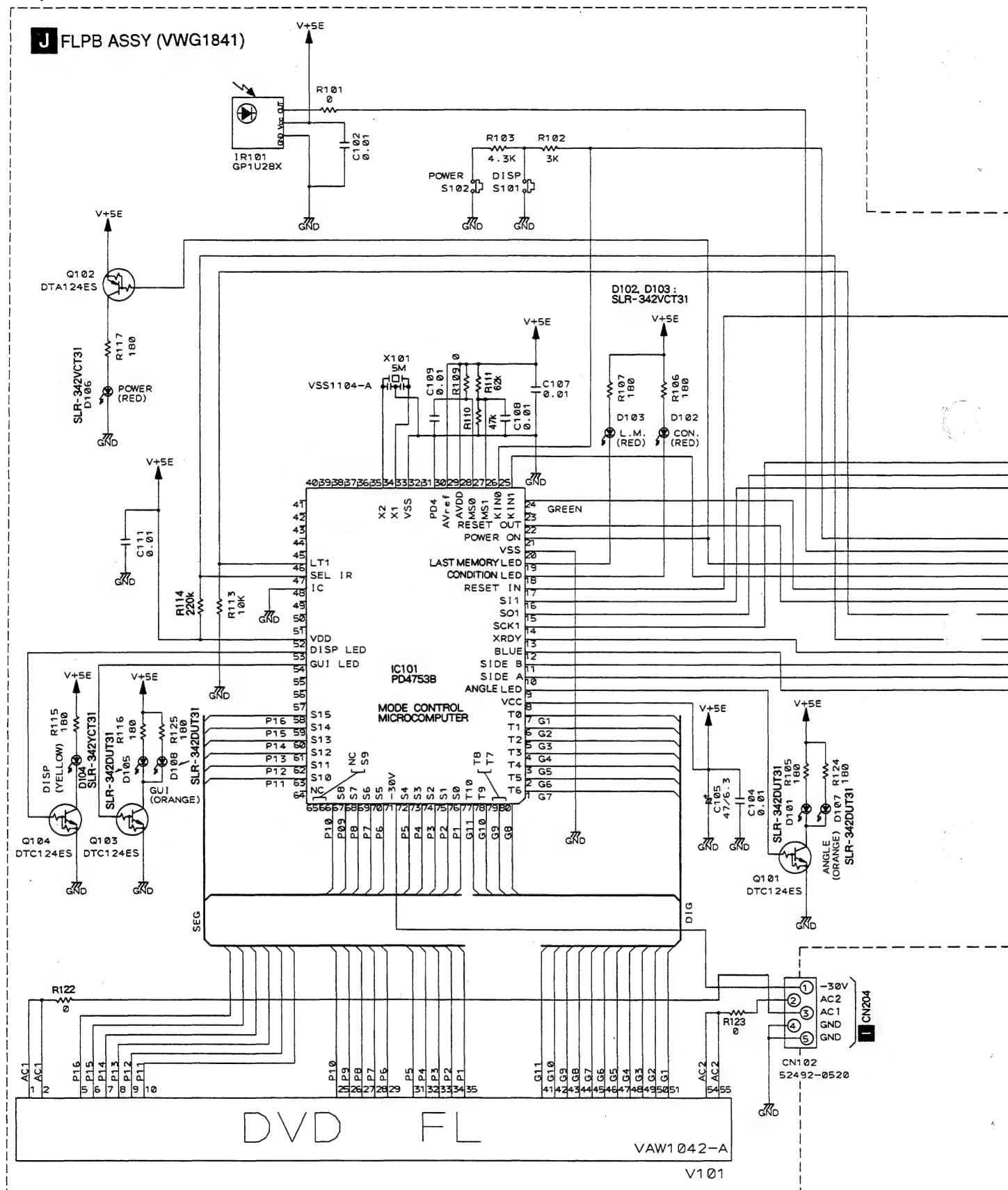
《 NOTE OF SPARE PARTS IN POWER SUPPLY (SYPS) ASSY 》

- In case of repairing, use the described parts only to prevent an accident.
- Please write the red ✓ mark on the board when the primary section of POWER SUPPLY (SYPS) Assy is repaired.
- Please take care to keep the space, not touching other parts when replacing the parts.

CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE NO. 491001 MFD.
BY LITTELFUSE INC. FOR P205 AND P211, 4911.25 MFD.
BY LITTELFUSE INC. FOR P209 AND P210.

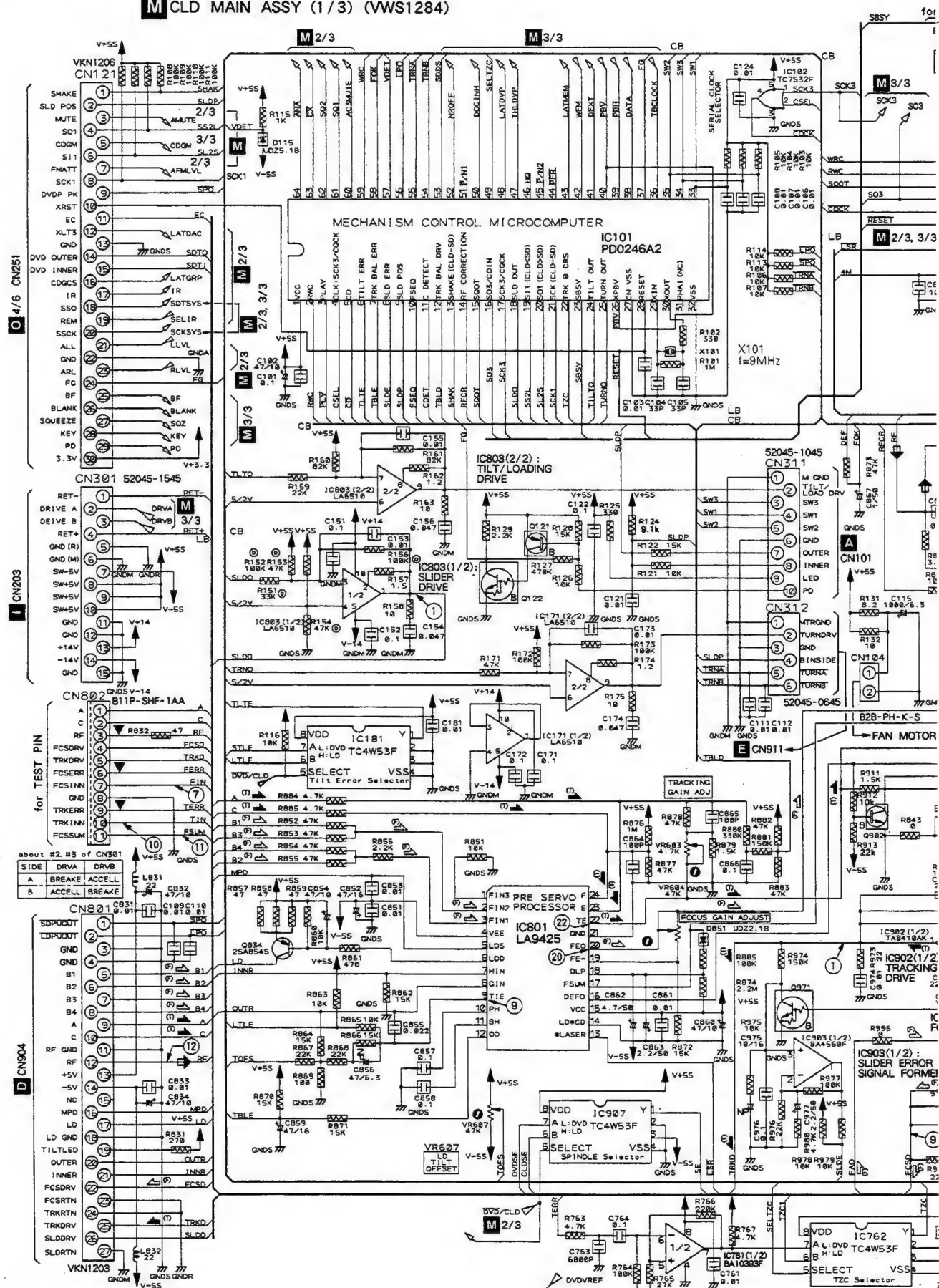


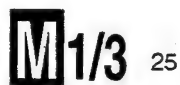
3.3 FLPB, KEYB AND LEDB ASSEMBLIES





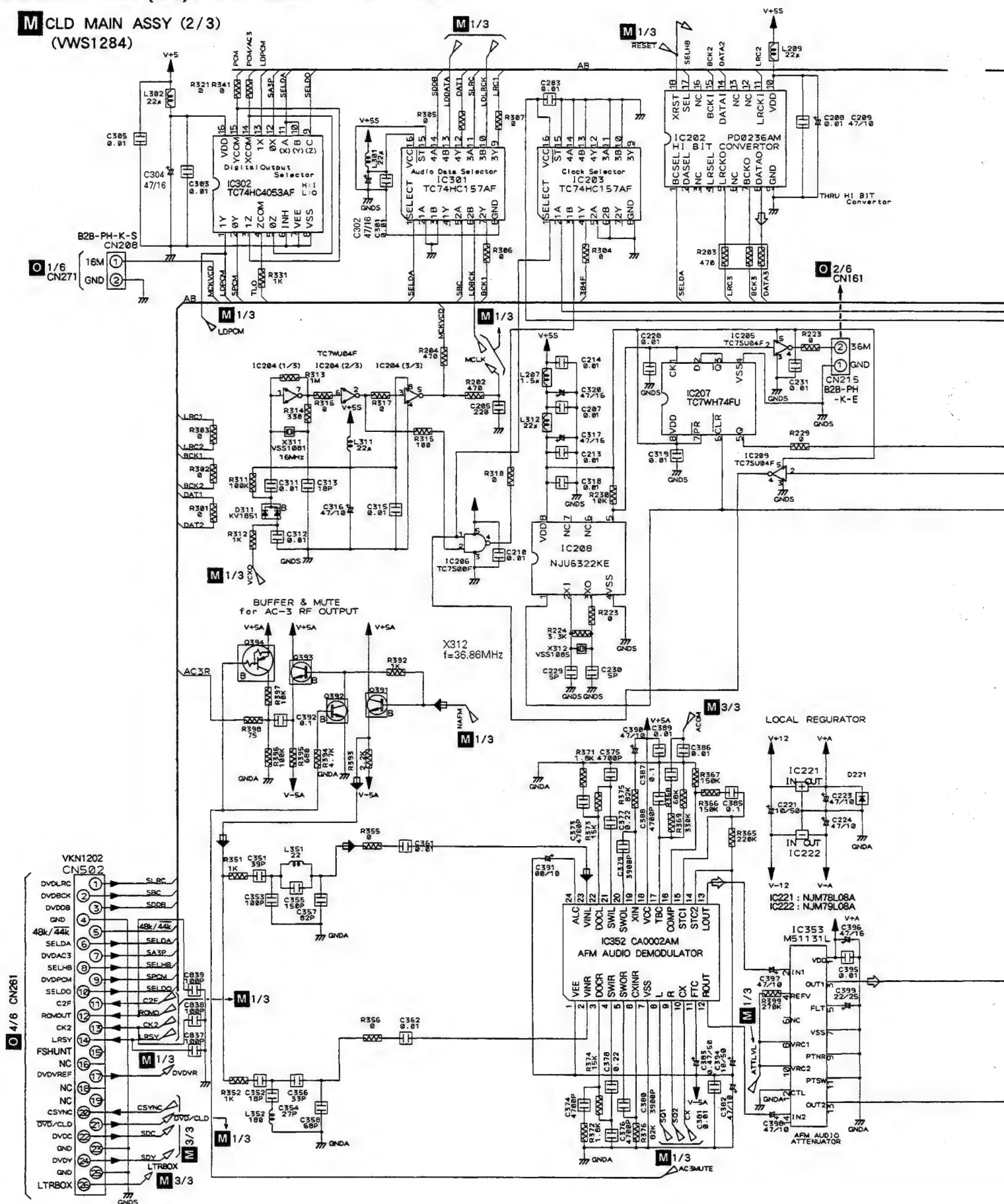
M CLD MAIN ASSY (1 / 3) (VWS1284)



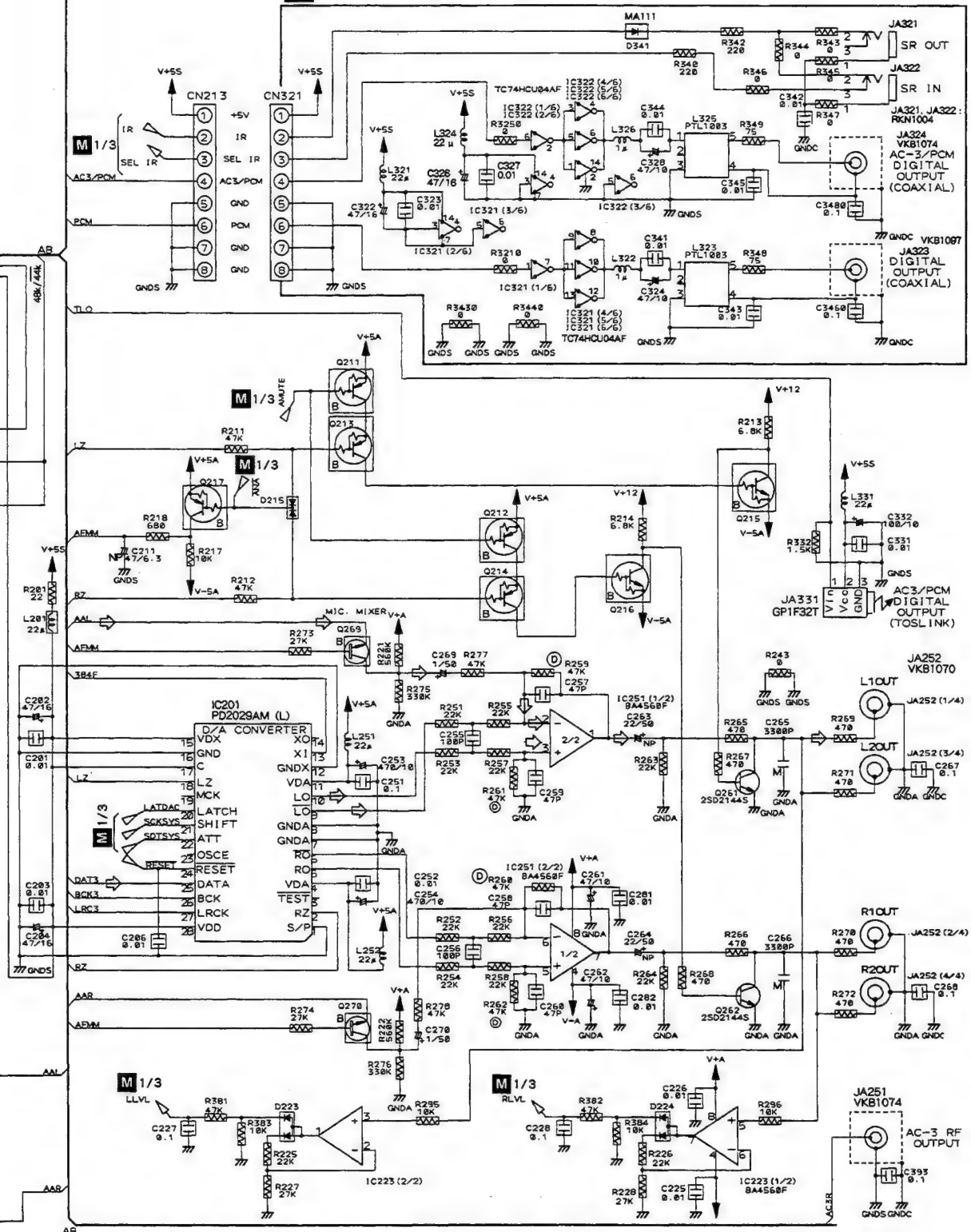


3.5 CLD MAIN (2/3) AND JCKB ASSEMBLIES

M CLD MAIN ASSY (2/3)
(VWS1284)



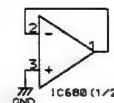
N JCKB ASSY (VWV1532)



Q269,Q270,Q391-Q393 2PD601A
Q261,Q262 2SD2144S
Q211-Q214,Q217,Q394 DTA1245K
Q215,Q216 DTC1245K

D221 EC100S04
D311 KV18S1
D223,D224 MA152WA
D215 MA152WK

• SIGNAL ROUTE
 —●— RF SIGNAL ROUTE
 - - - - - AUDIO SIGNAL ROUTE

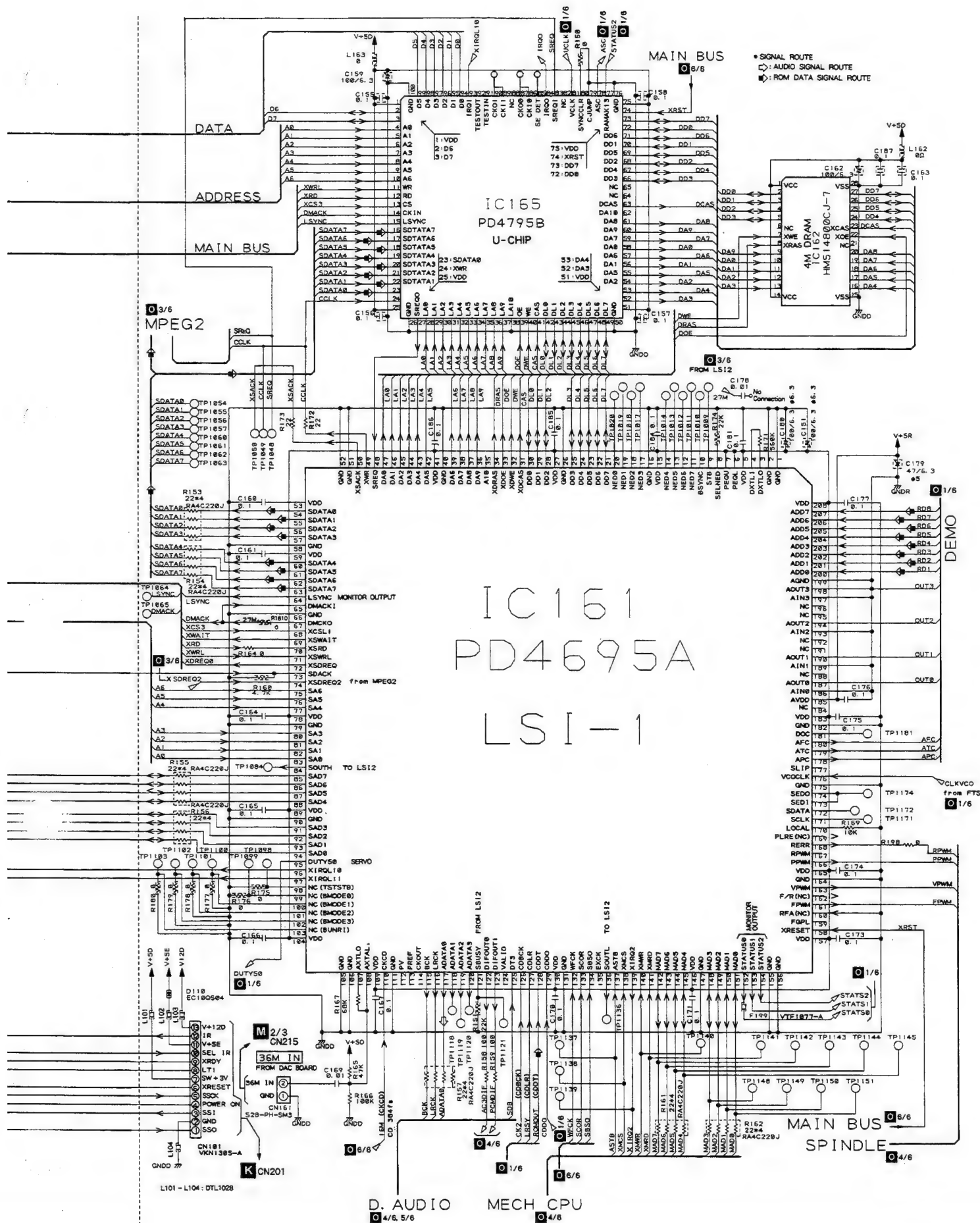






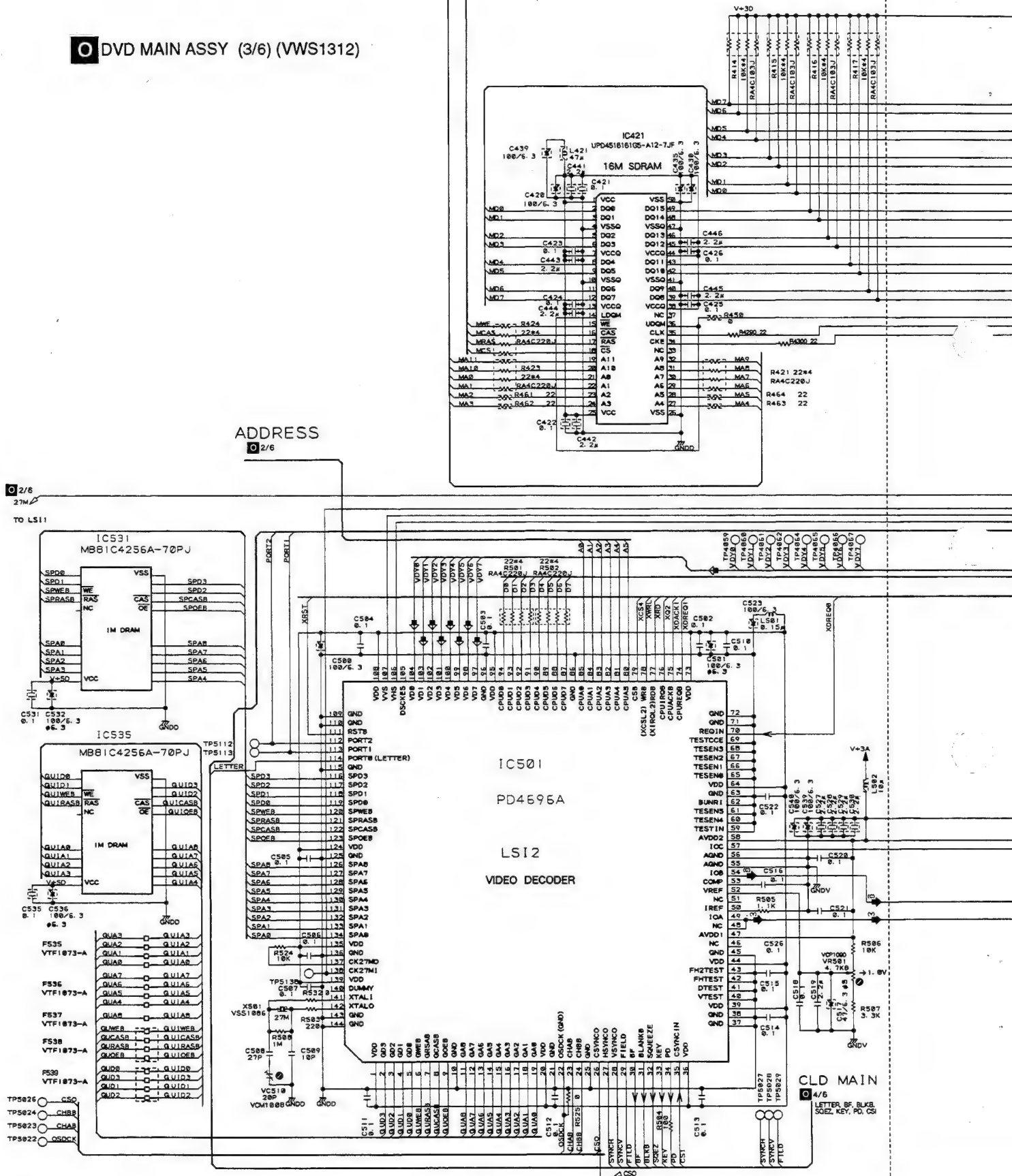






3.9 DVD MAIN ASSY (3/6)

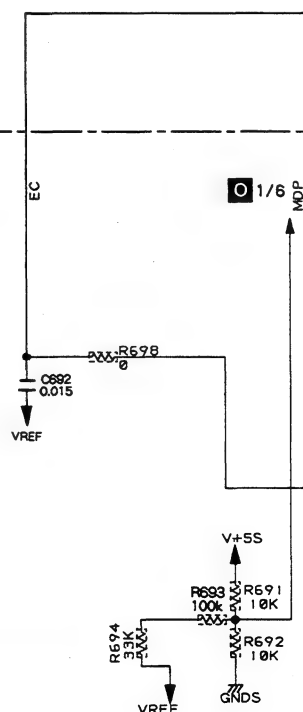
O DVD MAIN ASSY (3/6) (VWS1312)

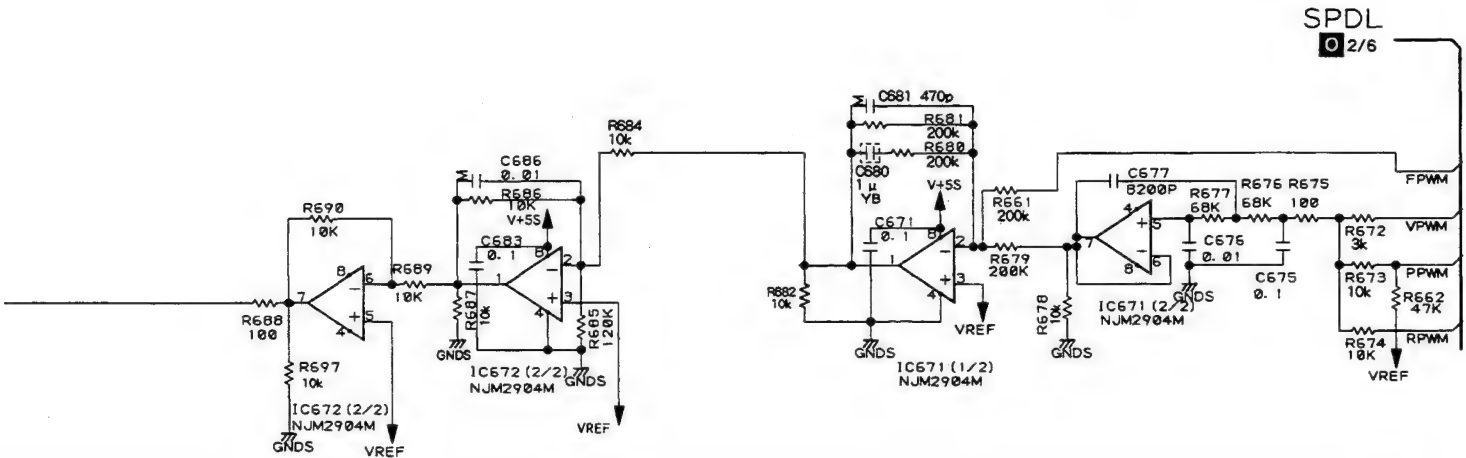






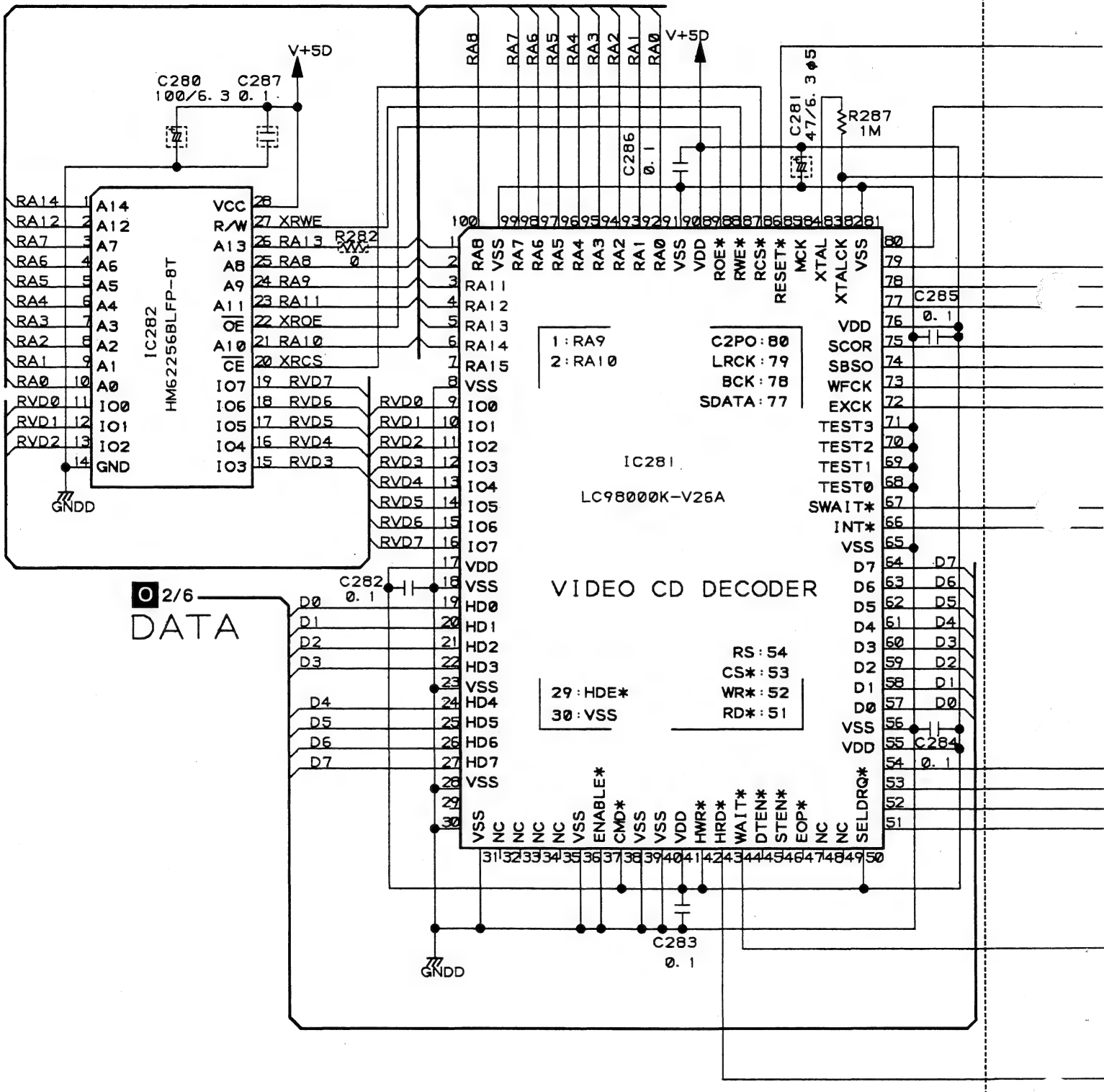
SPDL SECTION

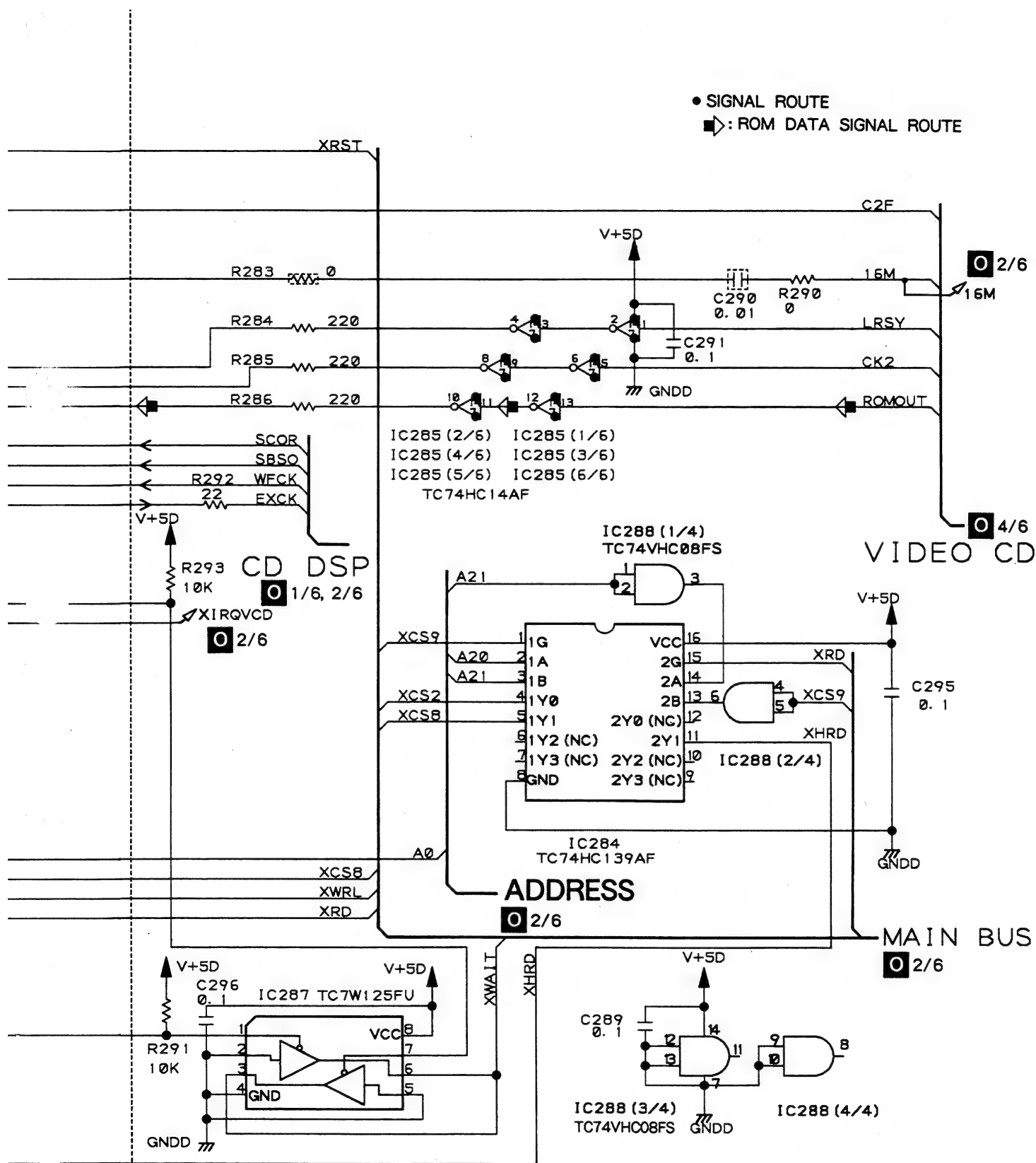




3.12 DVD MAIN ASSY (6/6)

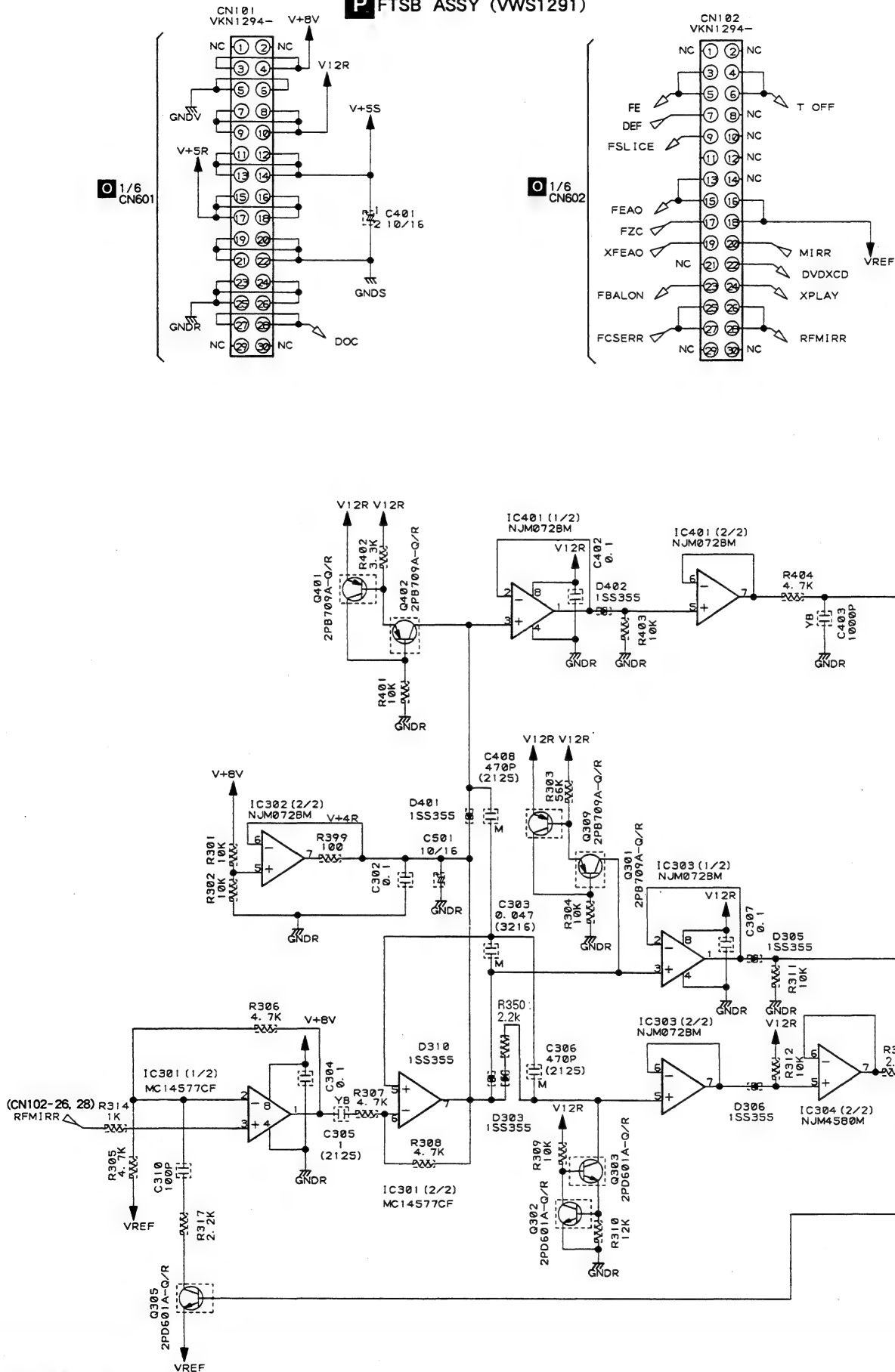
O DVD MAIN ASSY (6/6) (VWS1312)

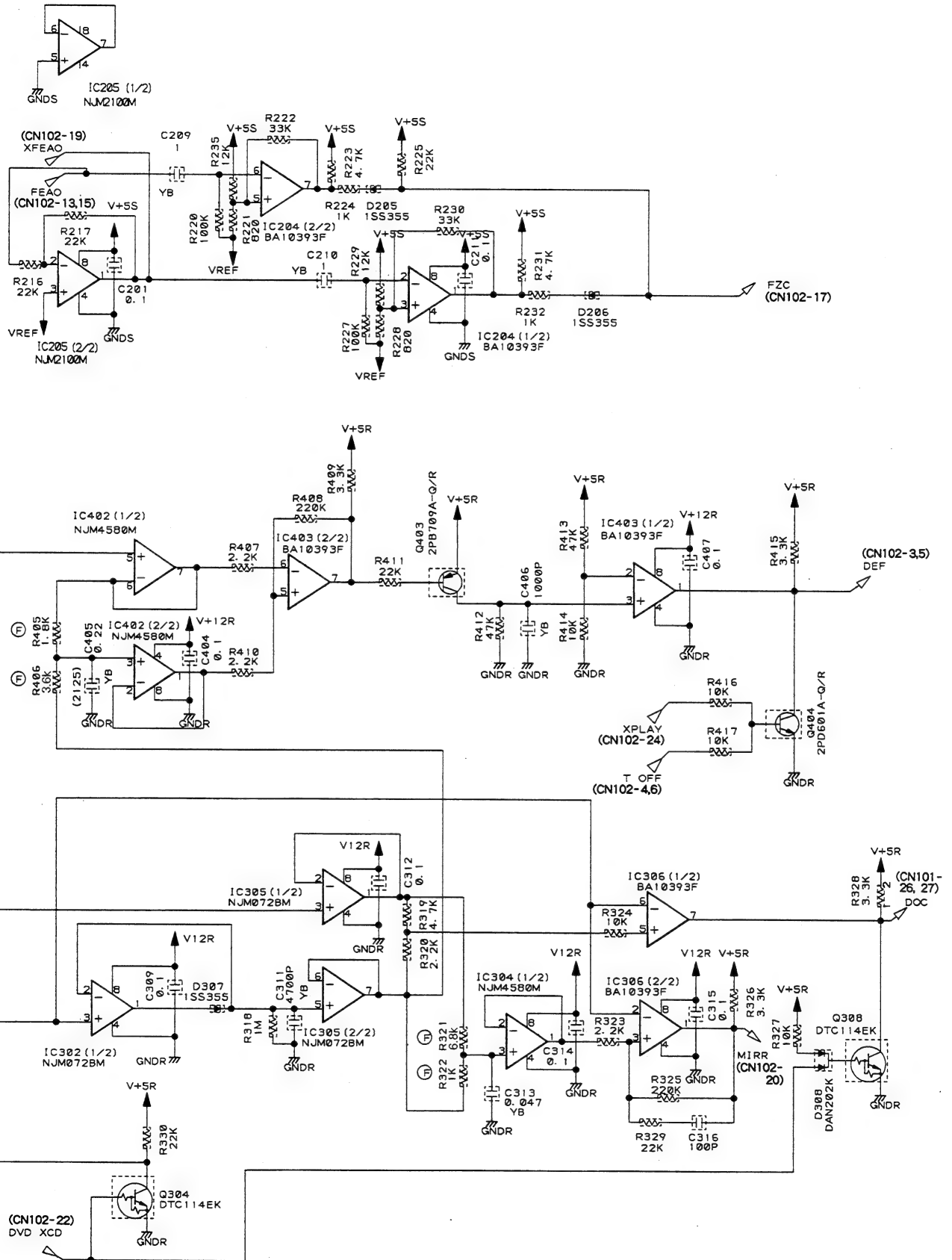


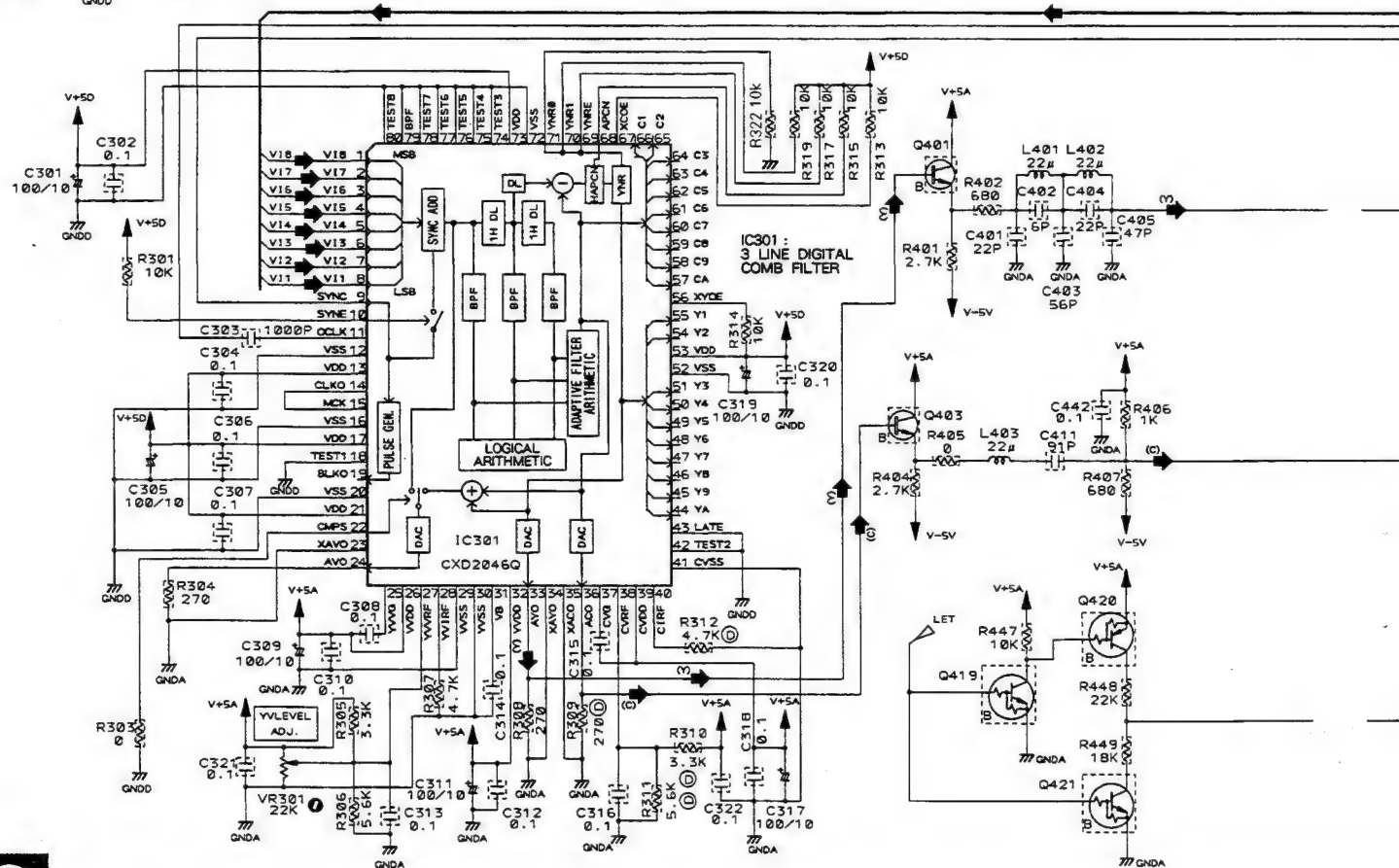


3.13 FTSB ASSY

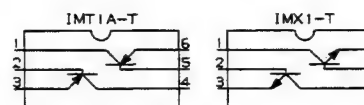
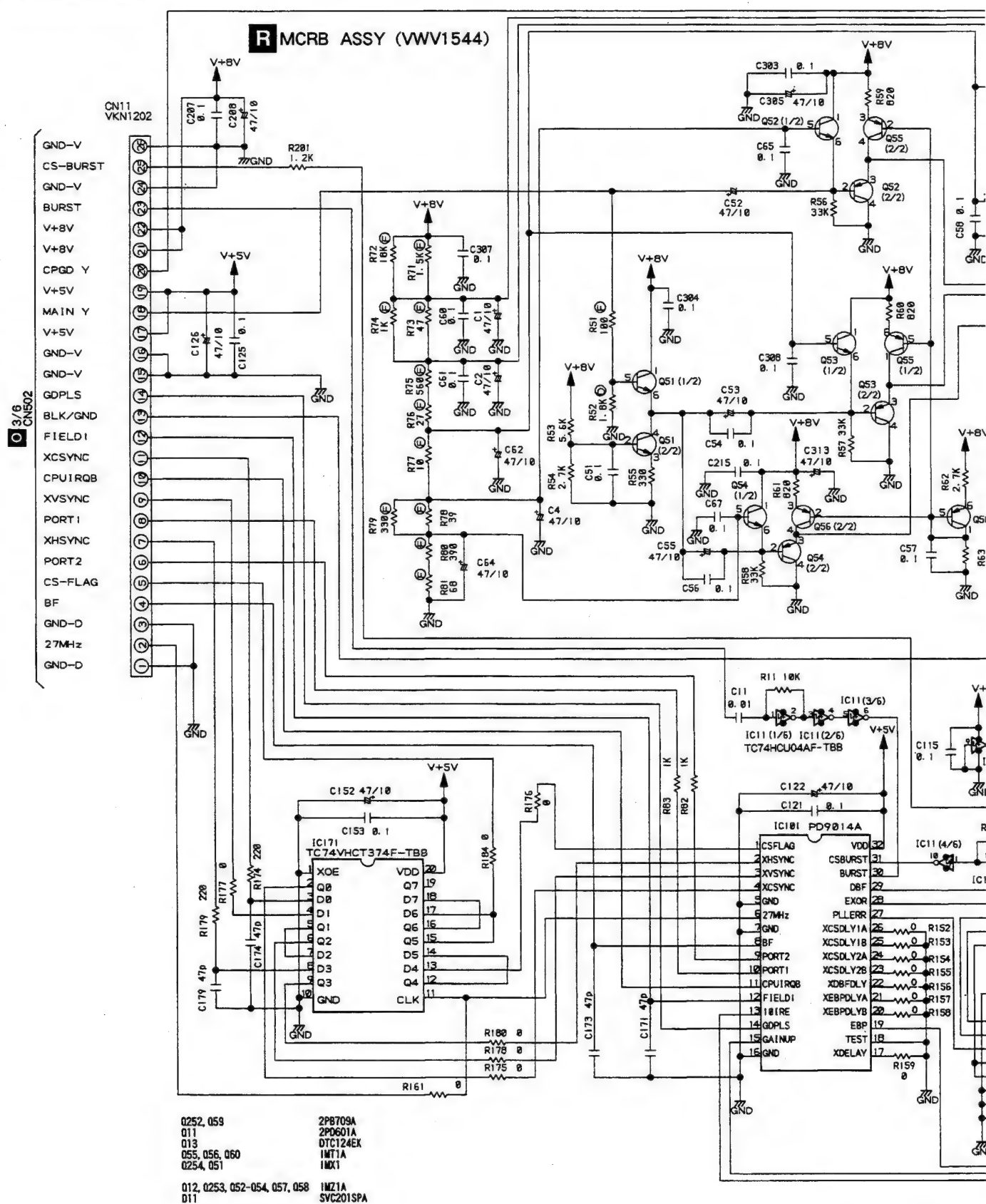
P FTSB ASSY (VWS1291)

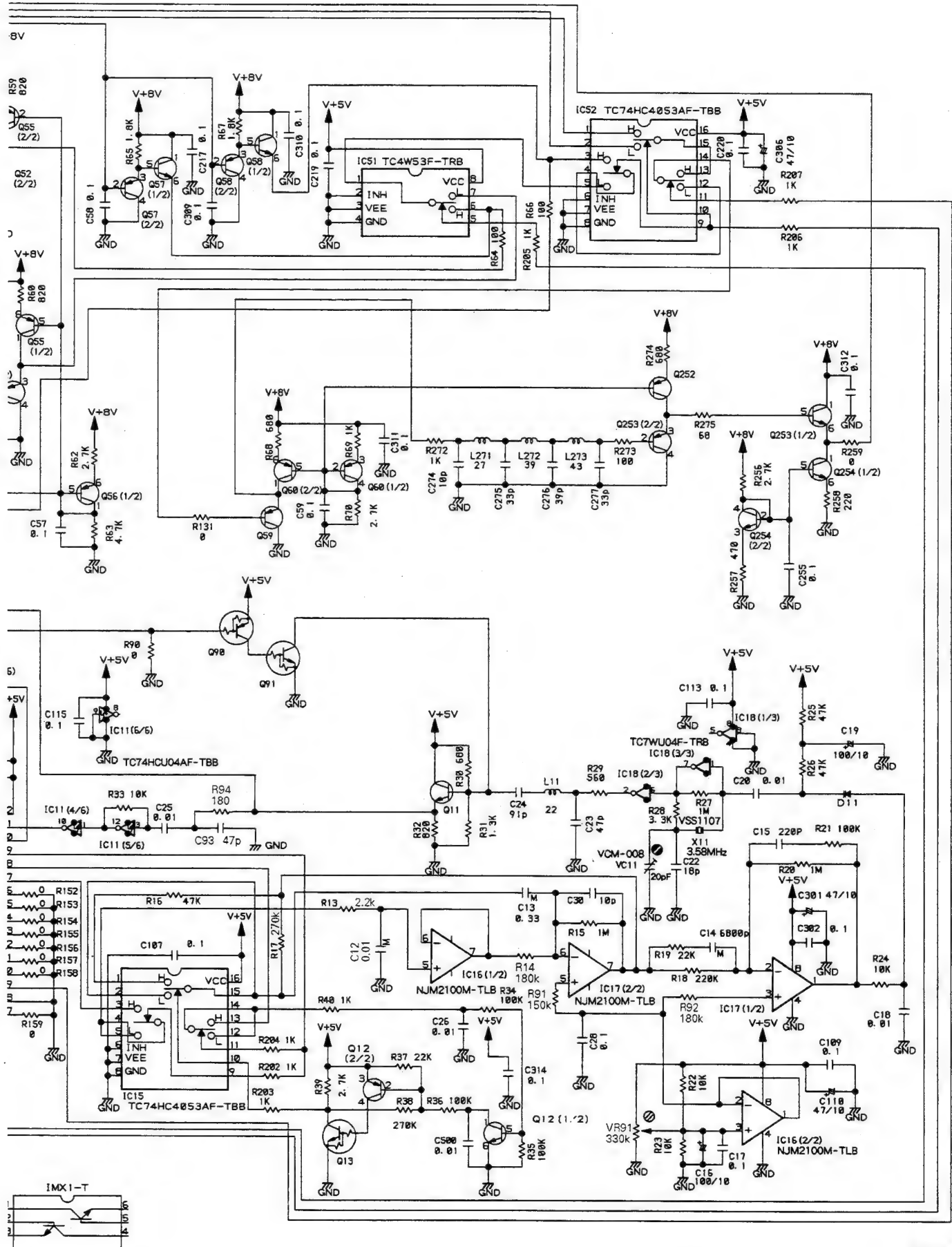










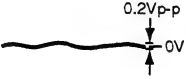
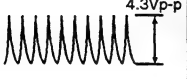
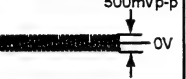
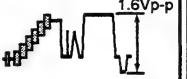
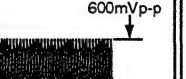
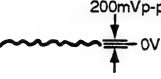
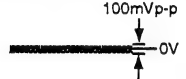

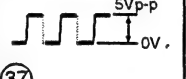
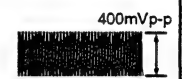
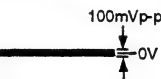
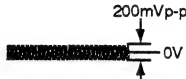
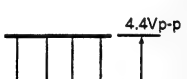
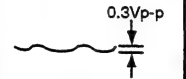



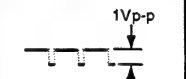
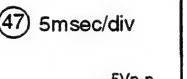
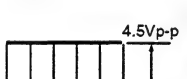
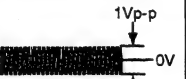
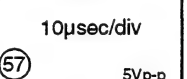
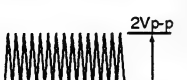
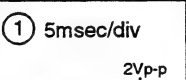
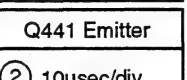
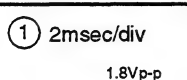
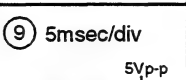
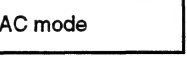


• WAVEFORMS AND VOLTAGE

Note : (No.) in the table correspond to the pin number.

Measurement condition : In case when (D.audio) is written, at time when disc that has digital audio recording is played.

M CLD MAIN ASSY

IC801 (LA9425) ⑨ 10msec/div  0.2Vp-p 0V DC mode	IC802 (LC78681KE) ② 0.1μsec/div  4.3Vp-p AC mode (D.audio)	IC901 (LA9420M) ⑩ 5msec/div  500mVp-p 0V DC mode	IC400 (LA7134M) ⑩ 10μsec/div  1.6Vp-p -0V DC mode	CN801 ⑫ 2msec/div  600mVp-p AC mode	CN802 ⑦ 5msec/div  200mVp-p 0V DC mode
⑫ 5msec/div  100mVp-p 0V DC mode	③③ 10μsec/div  4.2Vp-p AC mode (D.audio)	③⑧ 10μsec/div  5Vp-p 0V DC mode	②⑦ 2msec/div  400mVp-p AC mode		⑩ 5msec/div  100mVp-p 0V DC mode
②② 5msec/div  200mVp-p 0V DC mode	③⑤ 0.2μsec/div  4.4Vp-p AC mode (D.audio)	④⑩ 10msec/div  0.3Vp-p 0V DC mode	②⑤ 10μsec/div  1Vp-p -0V DC mode		⑪ 5msec/div  0.2Vp-p 0V DC mode
	③⑥ 0.2μsec/div  4.5Vp-p AC mode (D.audio)	④⑧ 50μsec/div  1Vp-p 0V DC mode	IC500 (PD6159A) ④⑦ 5msec/div  5Vp-p -0V DC mode		
	④③ 0.1μsec/div  4.5Vp-p AC mode (D.audio)	⑥⑩ 5msec/div  1Vp-p 0V DC mode	10μsec/div ⑤⑦ 5Vp-p  5Vp-p 0V DC mode		
	⑤⑨ 0.1μsec/div  2Vp-p AC mode (D.audio)	IC902 (TA8410AK) ① 5msec/div  2Vp-p 0V DC mode	⑤⑥ 5Vp-p  5Vp-p -0V DC mode		
	IC803 (LA6510) ① 2msec/div  1.8Vp-p 0V DC mode	⑨ 5msec/div  5Vp-p 0V DC mode	Q441 Emitter ② 10μsec/div  400mVp-p AC mode		

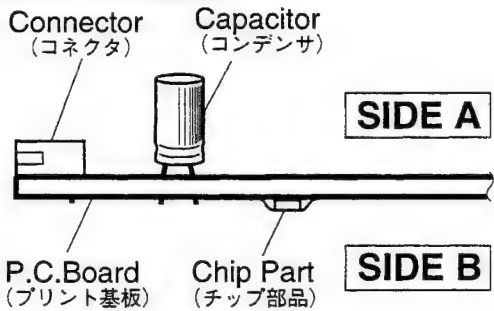
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

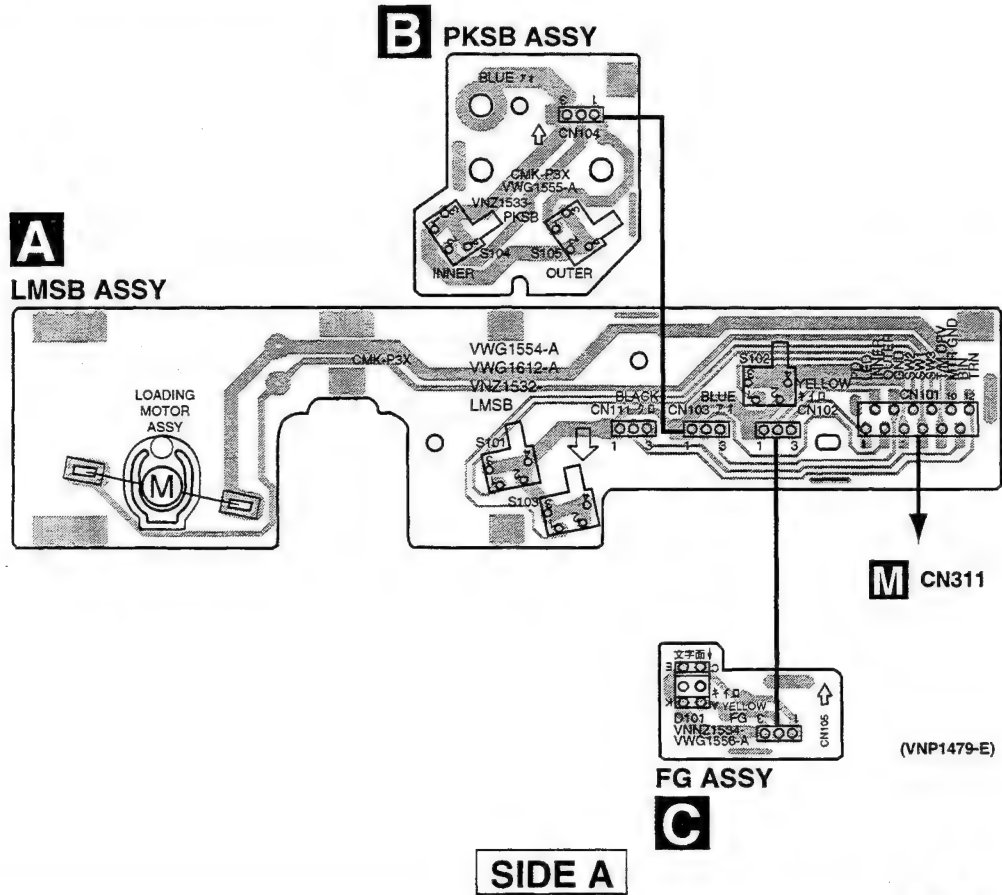
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
- For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



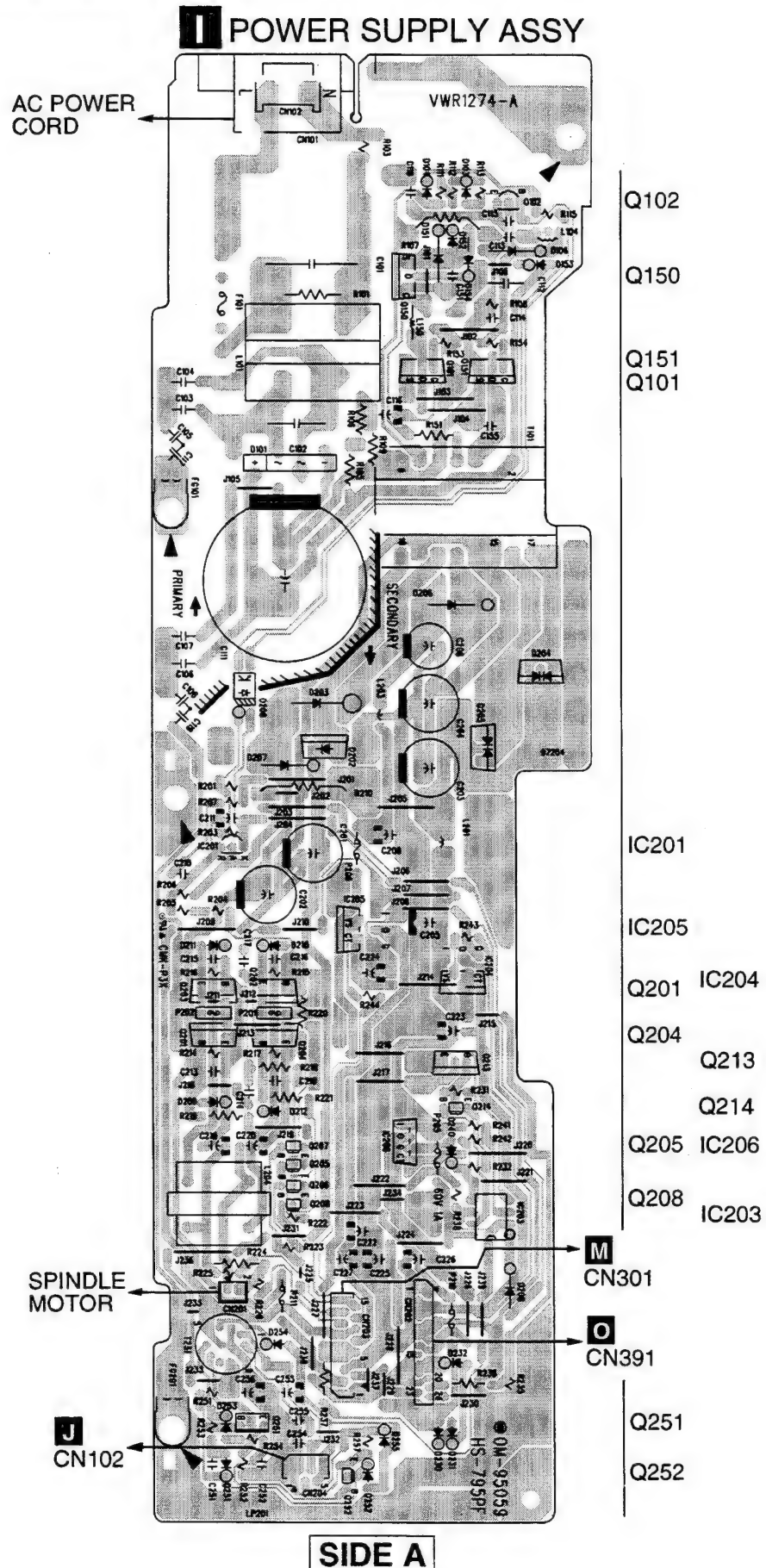
4.1 LMSB, PKSB AND FG ASSEMBLIES

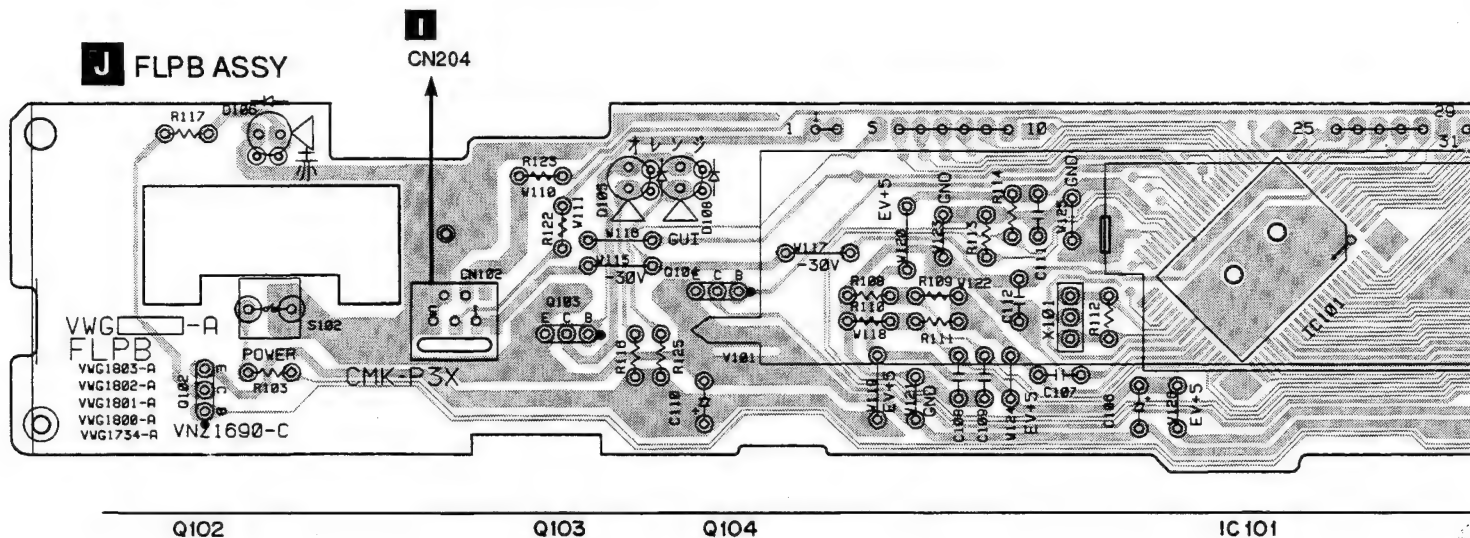


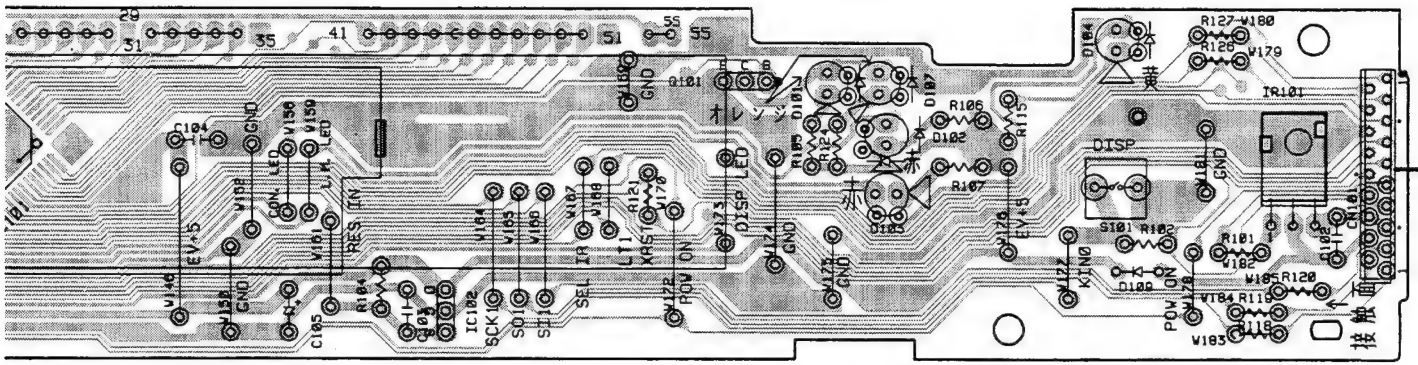
D E F G H



4.3 POWER SUPPLY ASSY



SIDE A

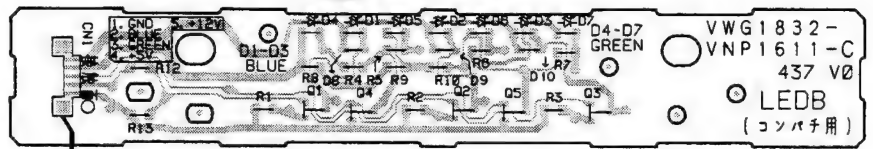


(VNP1547-C)

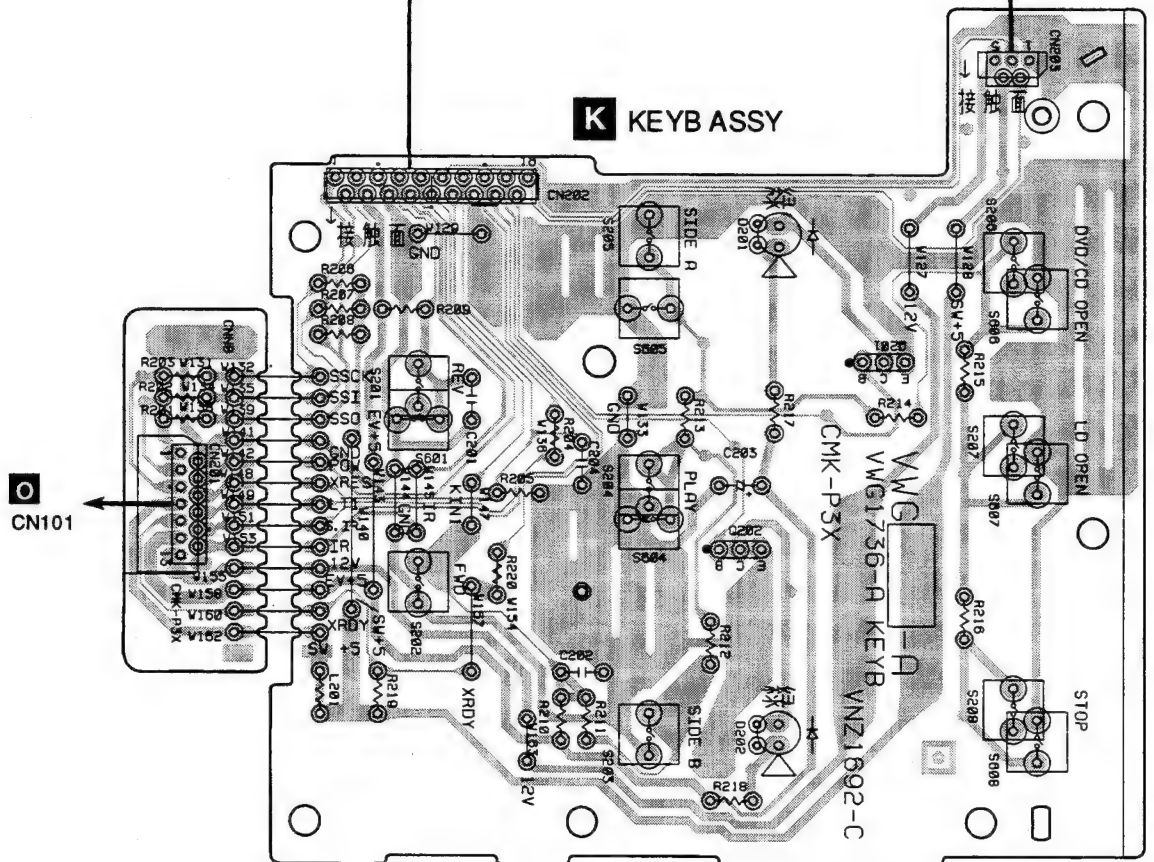
IC102

Q101

L LEDB ASSY



K KEYB ASSY



(VNP1547-C)

SIDE A

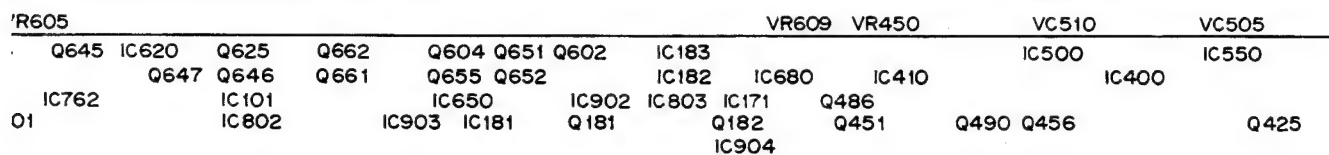


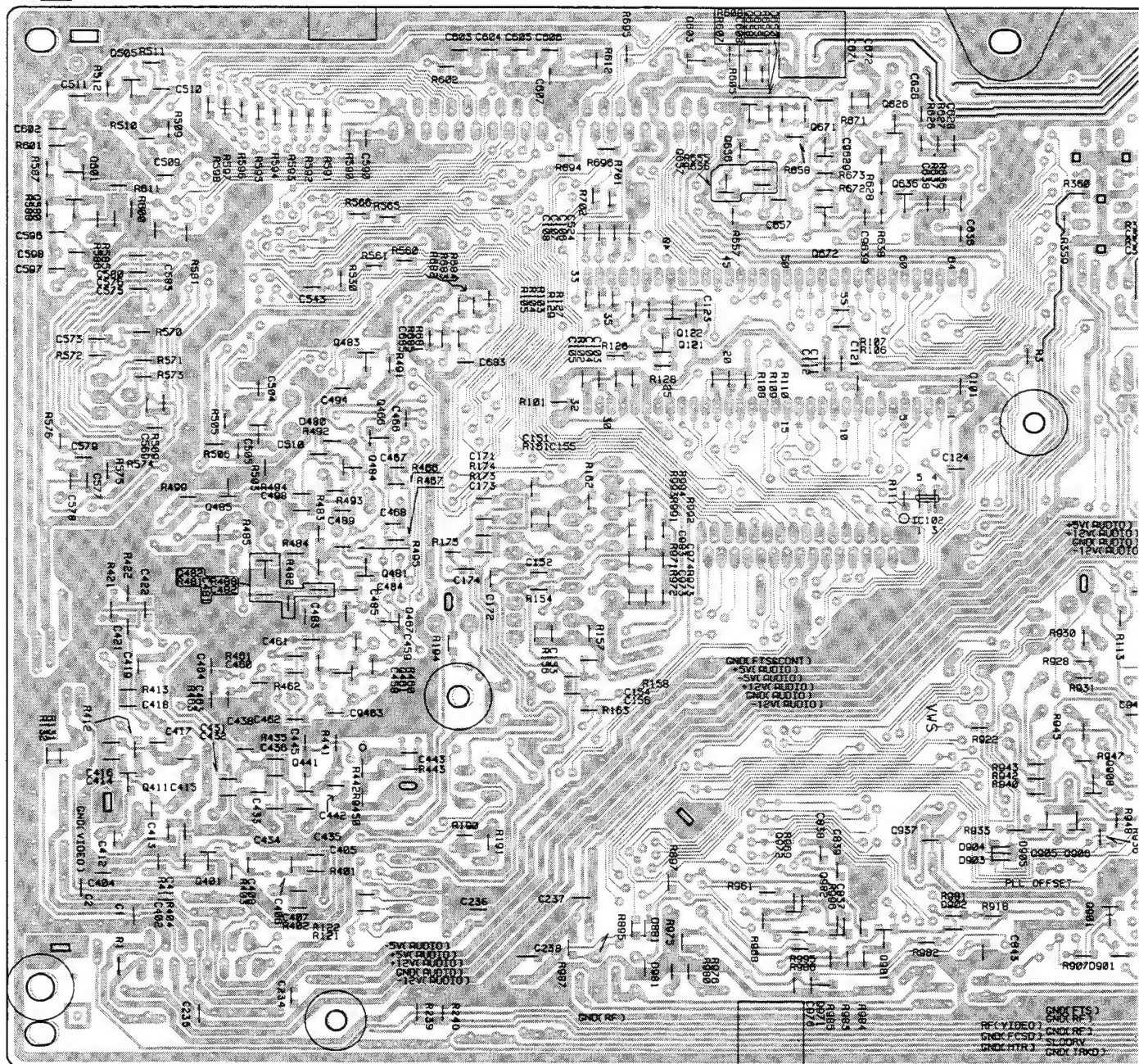
VR607 VR604 VR603

VR605

Q261	IC201		IC203		IC207	IC205	IC208			IC202	Q358		Q354	Q356	Q645	IC62
Q262	IC251			IC206	IC204		IC353	IC302	IC351	Q357	Q394	Q393	Q351			Q
IC321	IC223	Q834	IC221		IC801			IC322	IC352	IC301	Q391		IC905	IC761	IC762	
		Q141	IC222			Q811					Q392	IC906	IC907	IC901		
			Q143								Q910	Q909				

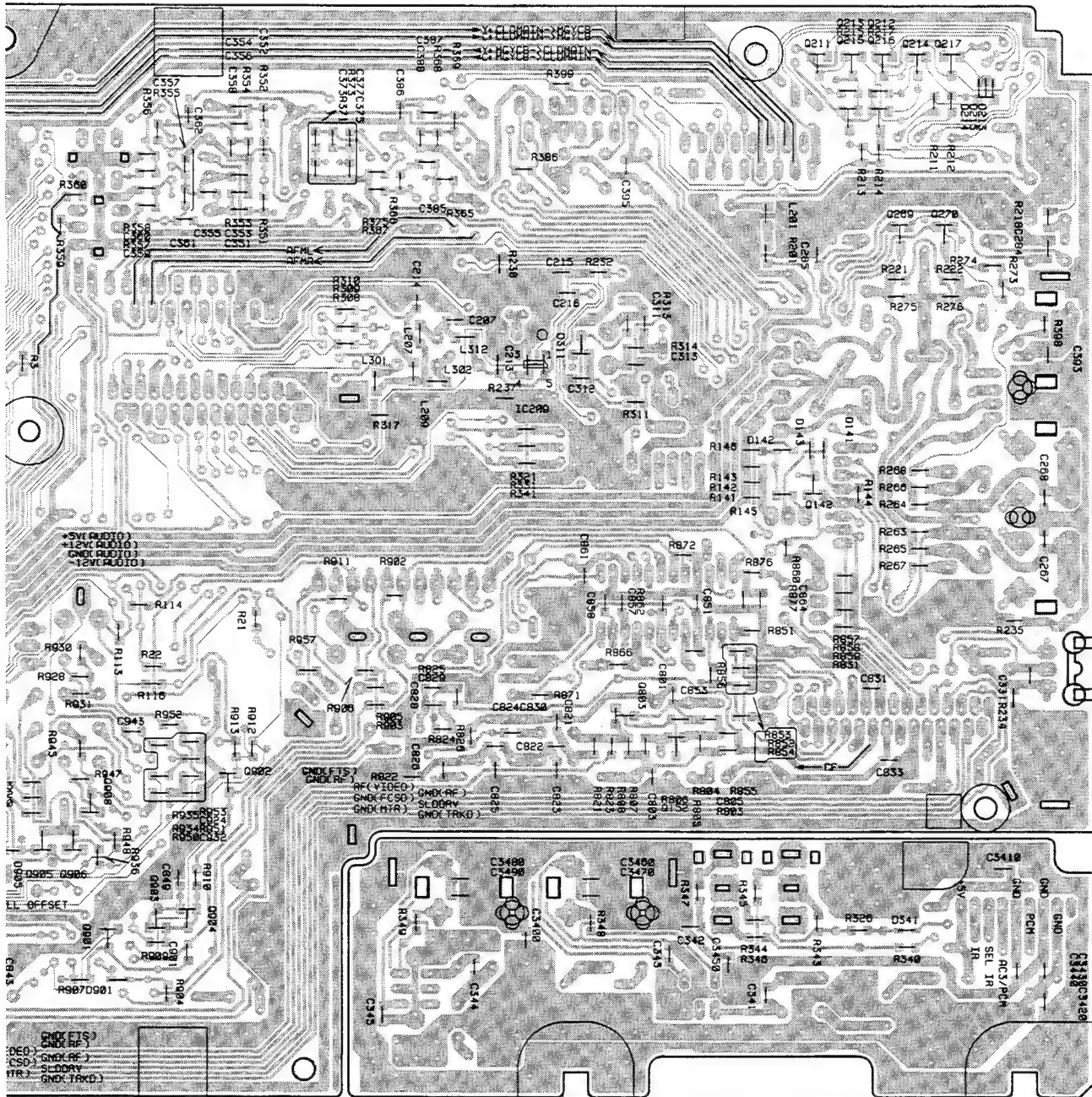
SIDE A



M CLD MAIN ASSY

Q580		Q461		Q603	Q656	Q671	Q626	IC102	
Q601	Q482	Q485	Q441	Q483	Q466	Q467			Q908
	Q411	Q401		Q484	Q481				Q905
							Q121	Q122	Q972
							Q981		Q971
									Q981
									Q906
									Q907

SIDE B



(VNPI605-D)

Q908
1905 Q906 Q901 Q903 Q904 Q902

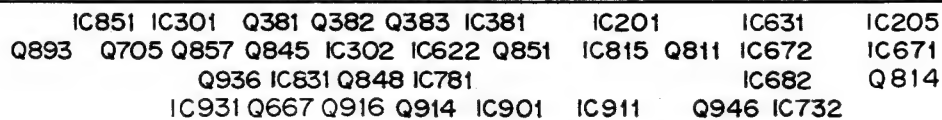
IC209 Q803
Q152

Q211 Q213 Q212
Q142 Q215 Q216 Q214 Q217
Q269 Q270

SIDE B

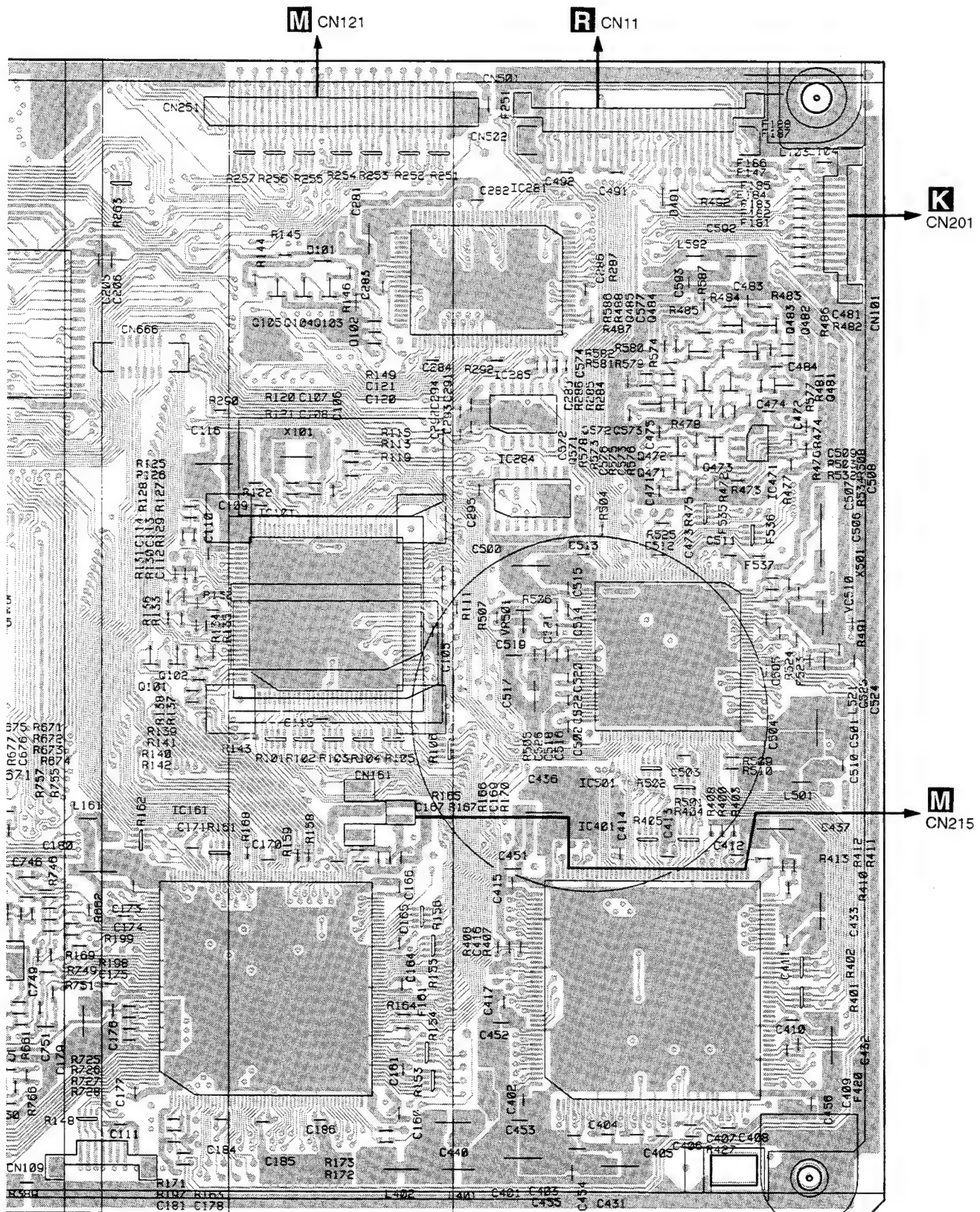
N
JCKB
ASSY

- O DVD MAIN ASSY**



SIDE A



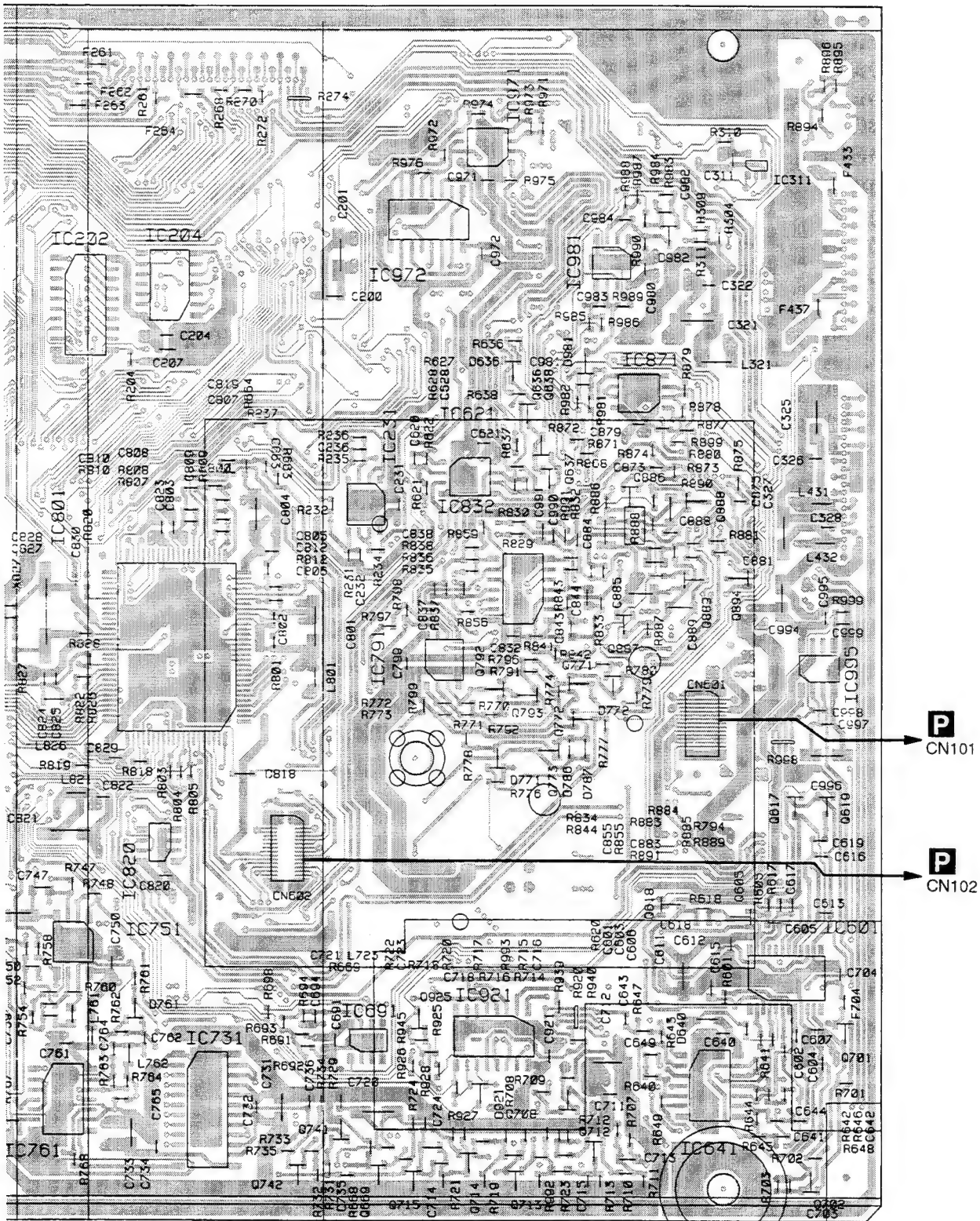


'65	VR501				VC510
205		Q103-Q105	IC281	Q485 Q484	Q481-Q483
371	Q101 Q102	IC101	IC285 IC284	Q571-Q573	IC471
314		IC161		Q471-Q473	
				IC401 IC501	

SIDE A

(VNP1550-C)

SIDE B

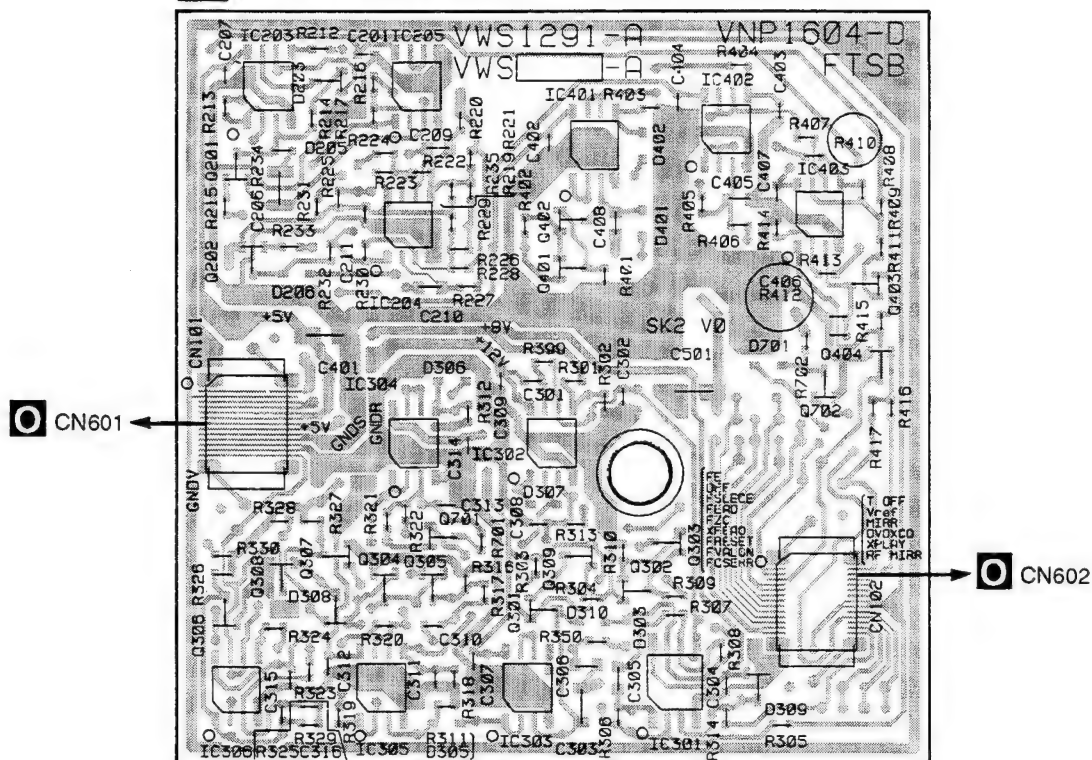


IC202 IC204 IC231 IC972 IC621 IC971 IC981 IC871 IC311 IC995
 IC751 IC801 IC791 IC832 Q636-Q638 Q886-Q889 Q617 Q619
 IC761 IC820 IC731 Q741 IC691 Q925 Q792 Q793 Q771-Q773 Q894 Q701
 Q742 IC921 Q708 Q618 Q605 IC601
 Q669 Q715 Q714 Q713 Q712 IC641 Q702

SIDE B

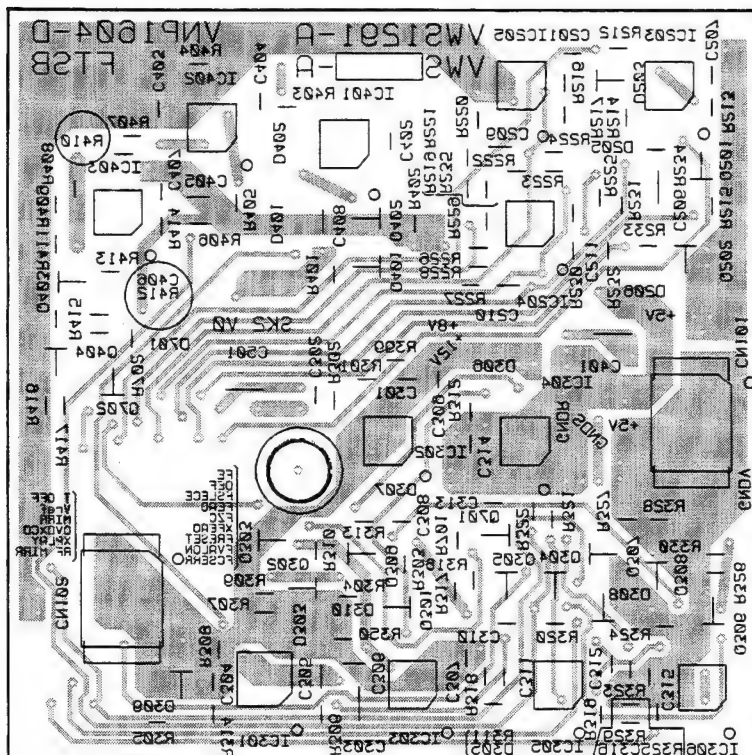
4.7 FTSB ASSY

P FTSB ASSY



IC203	IC205	Q401	Q402	IC401	IC402	IC403
Q201	IC305	IC204	Q305	Q309	Q302	Q303
Q202	Q308	Q307	IC304	Q301	IC302	
IC306	Q304	Q305	IC303	IC301		

SIDE A



SIDE B

**SIDE A**

IC202

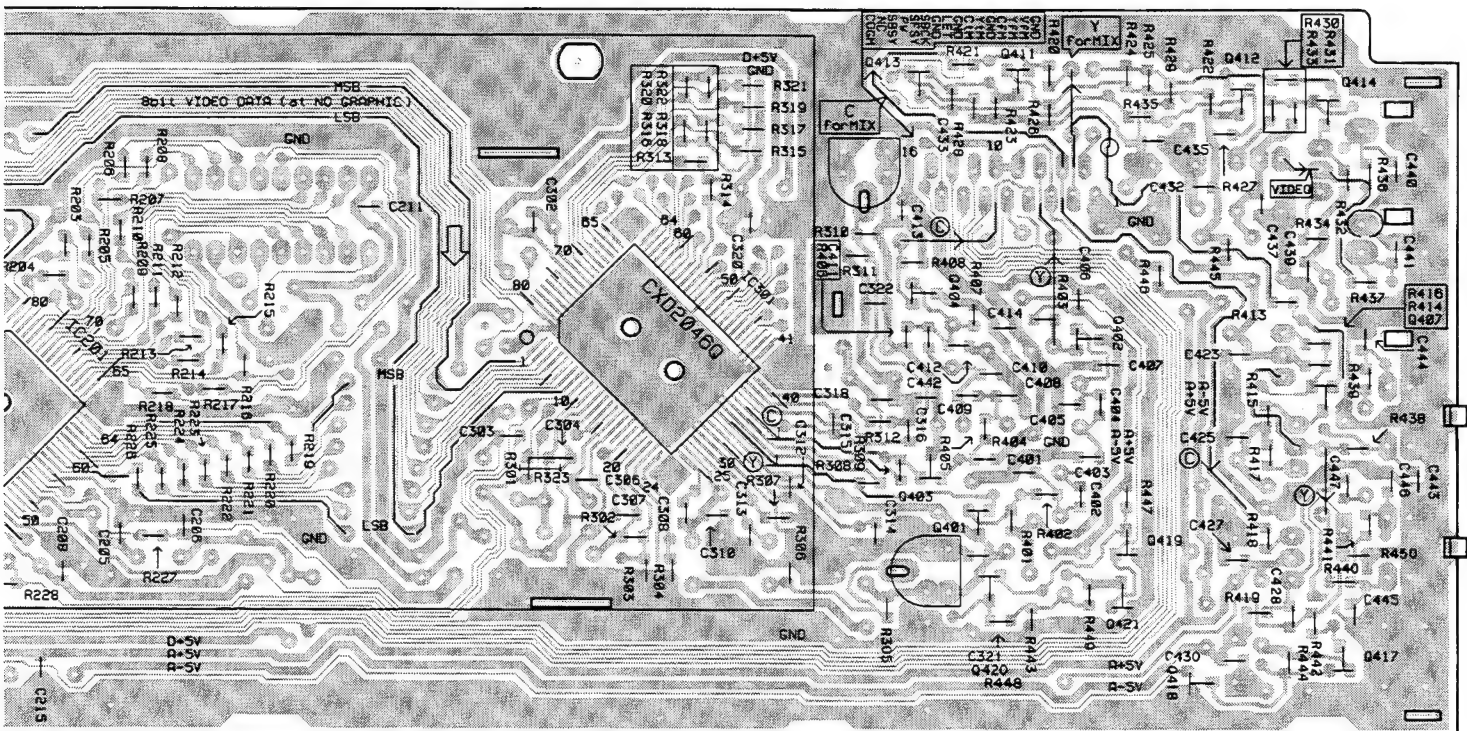


IC102

IC 103

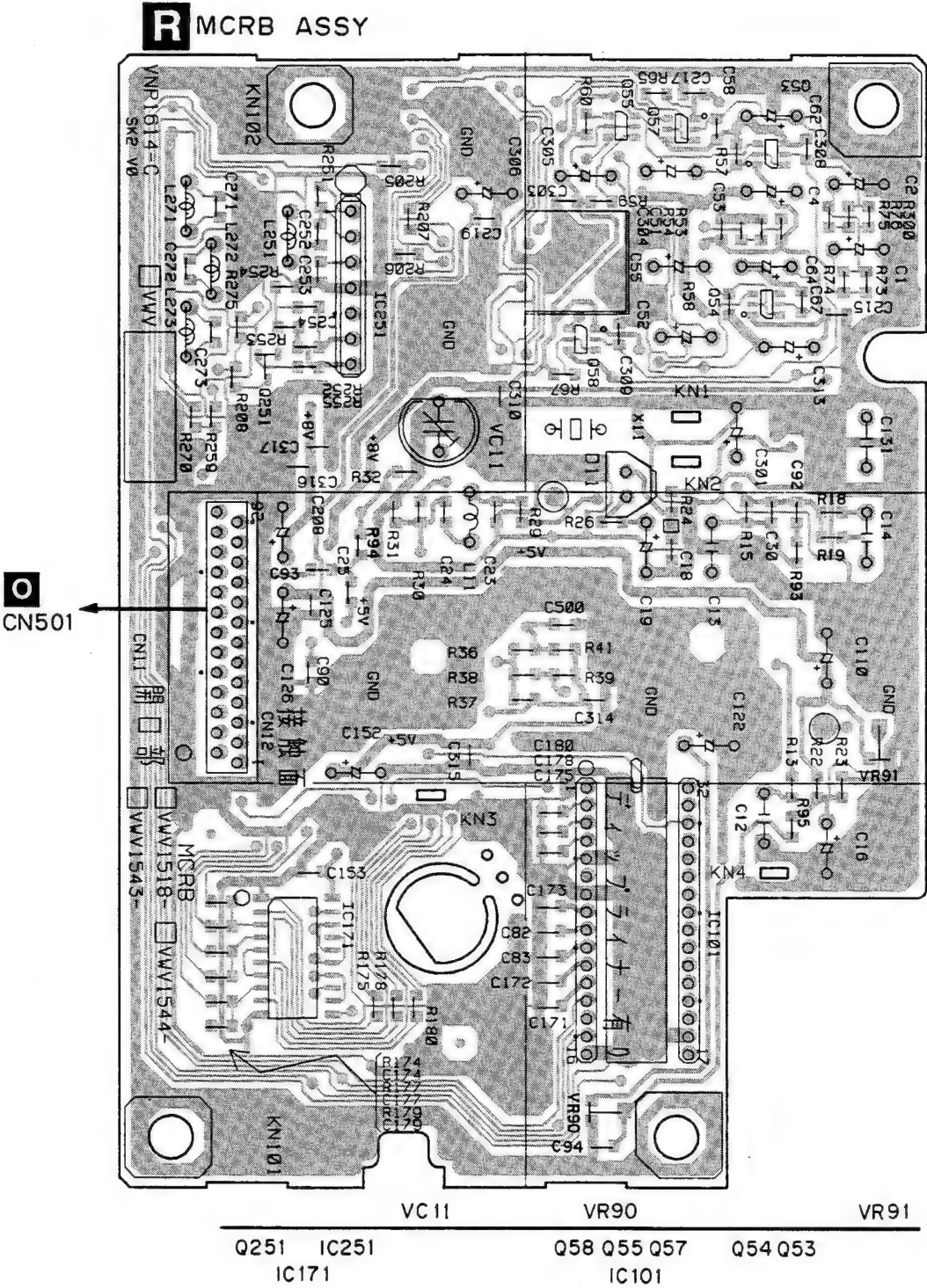
IC 201

SIDE B

SIDE A

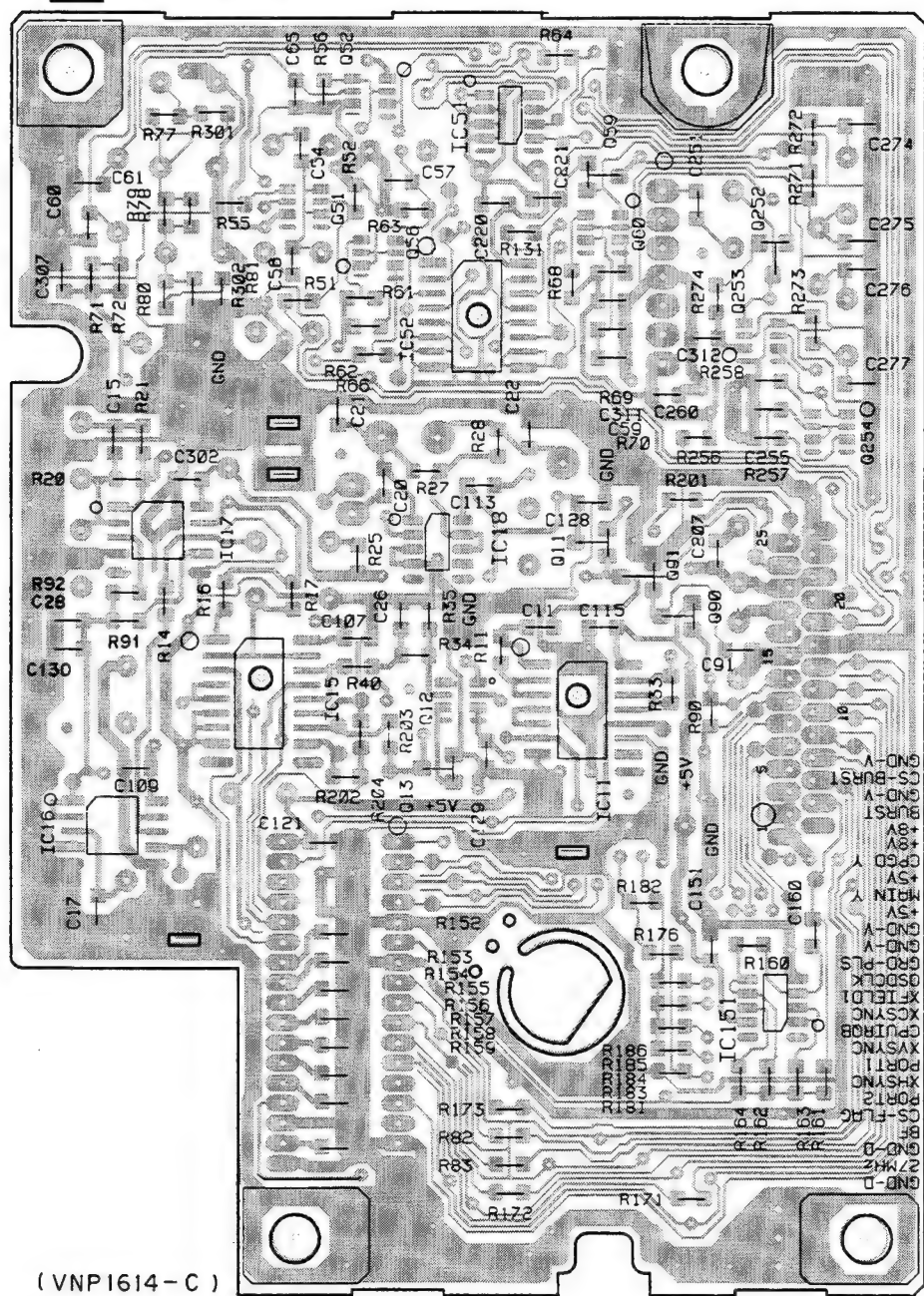
65

4.9 MCRB ASSY



SIDE A

R MCRB ASSY



			Q51	Q52	Q56	IC51	Q59	Q60		Q252 - Q254
IC16	IC17	IC15			IC18	IC52	Q11	Q91	Q90	
				Q13	Q12		IC11			IC151

SIDE B

5. PCB PARTS LIST

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56×10^1 \rightarrow 561 RD1/4PU $\boxed{5}\boxed{6}\boxed{1}$ J
 47k Ω \rightarrow 47×10^3 \rightarrow 473 RD1/4PU $\boxed{4}\boxed{7}\boxed{3}$ J
 0.5 Ω \rightarrow R50 RN2H $\boxed{R}\boxed{5}\boxed{0}$ K
 1 Ω \rightarrow 1R0 RS1P $\boxed{1}\boxed{R}\boxed{0}$ K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562×10^1 \rightarrow 5621 RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F

Mark	No.	Description	Part No.
------	-----	-------------	----------

LIST OF ASSEMBLIES

NSP	MACB ASSY	VWM1507
NSP	└ LMSB ASSY	VWG1554
NSP	└ PKSB ASSY	VWG1555
NSP	└ FG ASSY	VWG1556

NSP	MECHB ASSY	VWM1721
NSP	└ CNNB ASSY	VWG1792
NSP	└ TNMB ASSY	VWG1793
NSP	└ DCSB ASSY	VWG1794
NSP	└ LCSB ASSY	VWG1795
NSP	└ BLSB ASSY	VWG1796

Δ	POWER SUPPLY ASSY	VWR1274
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NSP	FLKB ASSY	VWM1760
	└ FLPB ASSY	VWG1841
	└ KEYB ASSY	VWG1842

	LEDB ASSY	VWG1832
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NSP	CLD MAIN ASSY	VWM1744
	└ CLD MAIN ASSY	VWS1284
	└ JCKB ASSY	VWV1532

	DVD MAIN ASSY	VWS1312
	FTSB ASSY	VWS1291
	MGYCB ASSY	VWV1468
	MCRB ASSY	VWV1544

MACB ASSY

OTHERS

	PC BOARD MACB	VNP1479
--	---------------	---------

A LMSB ASSY

SWITCHES

	S101-S103	DSG1017
--	-----------	---------

OTHERS

	CN101 10P FFC CONNECTOR	52044-1045
--	-------------------------	------------

Mark	No.	Description	Part No.
------	-----	-------------	----------

B PKSB ASSY

SWITCHES

	S104, S105	DSG1017
--	------------	---------

C FG ASSY

SEMICONDUCTOR

	D101	GP1S24
--	------	--------

MECHB ASSY

OTHERS

	PC BOARD MECHB	VNP1599
--	----------------	---------

D CNNB ASSY

OTHERS

CN903	23P FFC CONNECTOR	52030-2310
CN901	26P FFC CONNECTOR	52030-2610
CN905, CN906	KR CONNECTOR 2P	S2B-PH-K-S
CN902	26P FFC CONNECTOR	SLW26R-1C7
CN904	27P FFC CONNECTOR	SLW27R-1C7

E TNMB ASSY

OTHERS

CN911	6P FFC CONNECTOR	52044-0645
CN912	KR CONNECTOR 2P	B2B-PH-K-S
CN913	KR CONNECTOR 3P	B3B-PH-K-S

F DCSB ASSY

SWITCH

	S902	DSG1017
--	------	---------

OTHERS

	CN915 KR CONNECTOR 2P	S2B-PH-K-S
--	-----------------------	------------

Mark	No.	Description	Part No.
G		LCSB ASSY	
		SWITCH	
	S903		DSG1017
	OTHERS		
	CN916	KR CONNECTOR 2P	S2B-PH-K-S
H		BISB ASSY	
		SWITCH	
	S901		DSG1017
	OTHERS		
	CN914	KR CONNECTOR 2P	S2B-PH-K-S
I		POWER SUPPLY ASSY	
		SEMICONDUCTORS	
	IC201		AN1431T
	IC203		UPC358C
	IC204, IC205		VZF1047
	IC206		VZF1048
△	Q101, Q150, Q151		VZF1056
△	Q102		2SC3377
	Q201, Q202		T7F4T
	Q203, Q204		T7F4S
	Q205, Q206, Q252		2SC1740S
	Q207, Q208, Q214		2SA933S
	Q213		2SD2395
	Q251		2SD2007
△	D101		D2SB60F4004
	D202		VZF1051
	D204, D205		VZF1052
	D152, D240		VZF1054
	D252		VZF1055
	D106, D151		VZF1057
△	D209-D212, D254		10ELS2
	D104		1SS270A
	D208, D251		1SS270A
△	D153		VZF1045
	D230-D232		VZF1045
△	D154		EG01C
△	D103		MTZJ2.7B
	D253		MTZJ2.7B
	D255		MTZJ8.2B
△	D200		PS2561L1-1VM
	D207		RD33FB2
	D206		S2LA20
	D203		S3L20U
	OTHERS		
△	F101	FUSE (3.15A)	VEK1046
△	P201, P202	FUSE	VEK1047
△	P205, P211	FUSE (1A)	VEK1041
△	P209, P210	FUSE (1.25A)	VEK1045

Mark	No.	Description	Part No.
J		FLPB ASSY	
		SEMICONDUCTORS	
	IC101		PD4753B
	IC102		S-806D
	Q102		DTA124ES
	Q101, Q103, Q104		DTC124ES
	D101, D105, D107, D108		SLR-342DUT31
	D102, D103, D106		SLR-342VCT31
	D104		SLR-342YCT31
	SWITCHES		
	S101, S102		RSG1030
	CAPACITORS		
	C105		CEJA470M6R3
	C103		CKPUYB102K50
	C102, C104, C107-C109, C111		CKPUYF103Z25
	RESISTORS		
	All Resistors		RD1/4PU□□□J
	OTHERS		
	CN102	FFC BOTTOM CONNECTOR 5P	52492-0520
		REMOTE RECEIVER UNIT	GP1U28X
	V101	FL TUBE	VAW1042
		SPACER	VEC1599
	CN101	1.25 FJ CONNECTOR	VKN1375
		FL HOLDER	VNF1087
	X101	CERAMIC RESONATOR (5.00MHz)	VSS1104
K		KEYB ASSY	
		SEMICONDUCTORS	
	Q201, Q202		DTC124ES
	D201, D202		SLR-342MCT31
	SWITCHES		
	S201-S208		RSG1030
	CAPACITORS		
	C202		CKPUYB102K50
	C201		CKPUYF103Z25
	RESISTORS		
	All Resistors		RD1/4PU□□□J
	OTHERS		
	CN203	5P FFC CONNECTOR	VKN1181
	CN201	13P FFC CONNECTOR	VKN1217
	CN202	1.25 FJ CONNECTOR	VKN1375
L		LEDB ASSY	
		SEMICONDUCTORS	
	Q1-Q3		2PD601A
	Q4, Q5		UN2212
	D1-D3		CL-170SB-X
	D4-D7		PG1112H-430
	D8-D10		UDZ12B
	RESISTORS		
	All Resistors		RS1/10S□□□J
	OTHERS		
	CN1	5P FFC CONNECTOR	VKN1374

Mark	No.	Description	Part No.
M CLD MAIN ASSY			
SEMICONDUCTORS			
	IC761, IC904	BA10393F	
	IC223, IC251, IC680, IC903	BA4560F	
	IC905, IC906	BA4560F	
	IC352	CA0002AM	
	IC171, IC803	LA6510	
	IC400	LA7134M	
	IC901	LA9420M	
	IC801	LA9425	
	IC802	LC78681KE	
	IC353	M51131L	
	IC182, IC183	MM6558XF	
	IC221	NJM78L08A	
	IC222	NJM79L08A	
	IC208	NJU6322KE	
	IC202	PD0236AM	
	IC101	PD0246A2	
	IC201	PD2029AM(L)	
	IC500	PD6159B	
	IC902	TA8410AK	
	IC181, IC762, IC907	TC4W53F	
	IC203, IC301	TC74HC157AF	
	IC302, IC620	TC74HC4053AF	
	IC206	TC7S00F	
	IC102	TC7S32F	
	IC205, IC209, IC550	TC7SU04F	
	IC650	TC7W00F	
	IC207	TC7WH74FU	
	IC204	TC7WU04F	
	Q121, Q182, Q482, Q580, Q645	2PB709A	
	Q672, Q906	2PB709A	
	Q269, Q270, Q391-Q393, Q401	2PD601A	
	Q441, Q481, Q625, Q626, Q636	2PD601A	
	Q646, Q647, Q655-Q658	2PD601A	
	Q661, Q662, Q671, Q803, Q811	2PD601A	
	Q902-Q905, Q908, Q909	2PD601A	
	Q834	2SA854S	
	Q152	2SC3802K	
	Q261, Q262	2SD2144S	
	Q211-Q214, Q217, Q394, Q651	DTA124EK	
	Q981	DTA124EK	
	Q122, Q181, Q215, Q216, Q652	DTC124EK	
	Q901, Q971	DTC124EK	
	Q910	FMY1A	
	D221	EC100S04	
	D311, D505	KV1851	
	D181, D650, D655, D821, D881	MA111	
	D901, D902, D981	MA111	
	D223, D224	MA152WA	
	D215, D905	MA152WK	
	D851	UD22.0B	
	D115	UD25.1B	
COILS AND FILTERS			
	L413	LAU100J	
	L401	LAU101J	
	L352, L821-L823	LAU181J	
	L251, L252, L311, L331, L351	LAU220J	
	L412, L461, L482, L831, L832	LAU220J	

Mark	No.	Description	Part No.
	L411, L587		LAU270J
	L431, L432, L575		LAU430J
	L671		LAU4R7J
	L462		LAU560J
	L414		LAU8R2J
	L463		LFA561J
	F223 FERRITE BEAD		VTF1094
	F573 14.3MHz FILTER		VTF1095
	L201, L209, L301, L302, L312		VTL1058
	CHIP COIL (22μH)		
	L207 CHIP COIL (1.5μH)		VTL1059
CAPACITORS			
	C417, C418, C421, C434, C543		CCSQCH100D50
	C577, C845		CCSQCH100D50
	C255, C256, C353, C655, C821		CCSQCH101J50
	C837-C839, C843, C864, C865		CCSQCH101J50
	C943		CCSQCH101J50
	C432, C436, C483		CCSQCH120J50
	C412		CCSQCH121J50
	C408, C414, C484, C569		CCSQCH150J50
	C355, C823, C901		CCSQCH151J50
	C313, C352		CCSQCH180J50
	C205, C509, C824, C973		CCSQCH220J50
	C413, C555, C920, C921		CCSQCH221J50
	C550		CCSQCH240J50
	C354, C411, C416, C431, C830		CCSQCH270J50
	C104, C105, C356, C433, C451		CCSQCH330J50
	C579, C596		CCSQCH330J50
	C351, C407, C485, C672		CCSQCH390J50
	C671		CCSQCH391J50
	C222, C257-C260, C405, C461		CCSQCH470J50
	C229, C597		CCSQCH5R0C50
	C358, C598, C806		CCSQCH680J50
	C435, C822, C829		CCSQCH7R0D50
	C357, C825		CCSQCH820J50
	C459, C462		CCSQCH910J50
	C230		CCSQCHJ3R0C50
	C656		CEAL100M16
	C437		CEAL101M6R3
	C927, C931		CEAL220M6R3
	C936, C940		CEAL470M16
	C316		CEAL470M6R3
	C975		CEANP100M16
	C263, C264, C629, C639		CEANP220M10
	C187, C211, C441, C856		CEANP470M6R3
	C221, C394, C397, C398, C884		CEAS100M50
	C332, C391		CEAS101M10
	C115		CEAS102M6R3
	C269, C270, C867		CEAS1R0M50
	C399, C971, C972, C981, C982		CEAS220M25
	C863, C902, C934, C977		CEAS2R2M50
	C102, C202, C204, C209		CEAS470M16
	C223, C224, C261, C262, C302		CEAS470M16
	C304, C317, C320, C382, C390		CEAS470M16
	C396, C802, C804, C832, C834		CEAS470M16
	C842, C852, C854, C859, C860		CEAS470M16
	C253, C254		CEAS471M10
	C862, C984		CEAS4R7M50
	C383, C916, C922		CEASR47M50
	C439		CEV100M16
	C471, C473, C475, C507, C531		CEV101M6R3
	C535, C537, C539, C541, C561		CEV101M6R3

Mark	No.	Description	Part No.
	C571, C581, C591, C593		CEV101M6R3
	C928		CFTXA104J50
	C477, C911, C929		CFTXA154J50
	C930		CFTXA473J50
	C478		CFTXA683J50
	C425, C910, C917, C918		CKSQYB102K50
	C942		CKSQYB104K25
	C925		CKSQYB332K50
	C379, C380		CKSQYB392K50
	C371-C376, C388, C912		CKSQYB472K50
	C763		CKSQYB682K50
	C106-C112, C121, C124, C153		CKSQYF103Z50
	C155, C173, C181, C183, C184		CKSQYF103Z50
	C188, C189, C201, C203		CKSQYF103Z50
	C206-C208, C210, C213, C214		CKSQYF103Z50
	C231, C251, C252, C281-C283		CKSQYF103Z50
	C301, C303, C311, C312, C315		CKSQYF103Z50
	C318, C319, C331, C361, C362		CKSQYF103Z50
	C381, C386, C389, C395, C422		CKSQYF103Z50
	C442, C510, C511, C558		CKSQYF103Z50
	C575, C576, C580, C583, C587		CKSQYF103Z50
	C761, C762, C801, C803, C811		CKSQYF103Z50
	C827, C831, C833, C841, C846		CKSQYF103Z50
	C851, C853, C861, C881-C883		CKSQYF103Z50
	C885, C924, C935, C937, C939		CKSQYF103Z50
	C945, C946, C961, C962, C974		CKSQYF103Z50
	C983		CKSQYF103Z50
	C101, C103, C122, C151, C152		CKSQYF104Z25
	C171, C172, C182, C227, C228		CKSQYF104Z25
	C267, C268, C385, C387, C392		CKSQYF104Z25
	C402, C404, C419, C430, C438		CKSQYF104Z25
	C440, C445, C447, C472, C474		CKSQYF104Z25
	C476, C508, C524, C532, C536		CKSQYF104Z25
	C538, C540, C542, C556, C557		CKSQYF104Z25
	C562, C572, C582, C586, C589		CKSQYF104Z25
	C592, C594, C620, C622		CKSQYF104Z25
	C626-C628, C630, C636, C638		CKSQYF104Z25
	C660, C681-C683, C764, C805		CKSQYF104Z25
	C857, C858, C866, C886		CKSQYF104Z25
	C913-C915, C919, C963, C976		CKSQYF104Z25
	C186, C685, C855, C926, C938		CKSQYF223Z50
	C377, C378, C393, C908, C909		CKSQYF224Z25
	C154, C156, C174, C460, C826		CKSQYF473Z50
	C828, C932, C933		CKSQYF473Z50
	C923		CQMA103J50
	C903		CQMA222J50
	C265, C266		CQMA332J50
	C941		CQMA681J50

RESISTORS

R753	RA4C221J
R203, R751, R752	RA4C471J
R425, R833, R834, R837, R839	RN1/10SE1002D
R891, R892	RN1/10SE1002D
R152, R156	RN1/10SE1003D
R532	RN1/10SE1100D
R531	RN1/10SE1800D
R151, R893, R894	RN1/10SE3302D
R153, R154, R259-R262	RN1/10SE4702D
VR450 (2.2kΩ)	PCP1025
VR603 (4.7kΩ)	PCP1028
VR604, VR605, VR607, VR609 (47kΩ)	PCP1031
Other Resistors	RS1/10S□□□J

Mark	No.	Description	Part No.
OTHERS			
	CN312	6P FFC CONNECTOR	52045-0645
	CN311	10P FFC CONNECTOR	52045-1045
	CN301	15P FFC CONNECTOR	52045-1545
	CN103	16P FFC CONNECTOR	52045-1645
	CN802	11P TOP POST	B11P-SHF-1AA
	CN215	KR CONNECTOR 2P	B2B-PH-K-E
	CN104, CN208	KR CONNECTOR 2P	B2B-PH-K-S
	CN803	3P TOP POST	B3P-SHF-1AA
		SCREW	BBZ30P060FCC
	CN101	B TO B CONNECTOR 12P	BTFN12S-3SB7
	CN102	B TO B CONNECTOR 20P	BTFN20S-3SB7
	JA331	OPTICAL MODULE	GP1F32T
		PCB BINDER	VEF1040
	JA252	4P PIN JACK	VKB1070
	JA251	1P PIN JACK	VKB1074
		64P IC SOCKET	VKH1004
	CN502	26P FFC CONNECTOR	VKN1202
	CN801	27P FFC CONNECTOR	VKN1203
	CN121	30P FFC CONNECTOR	VKN1206
		SCREW TERMINAL	VNE1948
	X101	CERAMIC RESONATOR (9MHz)	VSS1040
	X311	CRYSTAL RESONATOR (16MHz)	VSS1081
	X312	CHIP CRYSTAL (36.86MHz)	VSS1085
	X505	CRYSTAL RESONATOR (14MHz)	VSS1103

N JCKB ASSY

SEMICONDUCTORS

IC321, IC322	TC74HCU04AF
D341	MA111

COILS

L322, L326	LAU1R0J
L321, L324	LAU220J
L323, L325	PTL1003

CAPACITORS


C322, C324, C326, C328	CEAL470M16
C323, C327, C341-C345	CKSQYF103Z50
C3460, C3480	CKSQYF104Z25

RESISTORS

All Resistors	RS1/10S□□□J
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OTHERS

JA321, JA322	REMOTE CONTROL JACK	RKN1004
JA324	1P PIN JACK	VKB1074
JA323	1P PIN JACK	VKB1097
	SCREW TERMINAL	VNE1948

Mark	No.	Description	Part No.
	DVD MAIN ASSY		
	SEMICONDUCTORS		
	IC631, IC981		BA10393F
	IC851		BA6797FP
	IC901		CXA2521AQ
	IC801		CXD2545Q
	IC101		HD6417032F20
	IC162		HM514800CJ-7
	IC282		HM62256BLFP-8T
	IC995		IR3C07N
	IC281		LC98000K-V26A
	IC531, IC535		MB81C4256A-70PJ
	IC551		MC14577CF
	IC231, IC621, IC781, IC931		NJM2100M
	IC671, IC672, IC732, IC791, IC971		NJM2904M
	IC831, IC911		NJM4580M
	IC601		PA0065AM
	IC2050		PD5415F
	IC161		PD4695A
	IC501		PD4696A
	IC201		PD4784A
	IC165		PD4795B
	IC1030		PD6226A
	IC104		PDK022A
	IC381		TA78M08F
	IC471, IC815, IC820		TC4W53F
	IC102		TC558128AJ-20
	IC284		TC74HC139AF
	IC285		TC74HC14AF
	IC204		TC74HC20AF
	IC972		TC74HC4052AF
	IC921		TC74HC4053AF
	IC832		TC74HC4066AF
	IC202		TC74HC573AF
	IC641, IC761		TC74HCU04AF
	IC288		TC74VHC08FS
	IC302		TC7S04F
	IC105		TC7SH02F
	IC106		TC7SH32F
	IC311		TC7ST08F
	IC287		TC7W125FU
	IC751		TLC272CPS
	IC731		TLC5540INS
	IC421		UPD4516161G5-A12-7JF
	IC401		UPD61021
	IC205		VKH1011
	IC301		ZR38521
	Q473, Q481-Q485, Q551, Q552		2PB709A
	Q561, Q562, Q591, Q667, Q702		2PB709A
	Q705, Q708, Q741, Q792, Q814		2PB709A
	Q848, Q857, Q893		2PB709A
	Q382, Q383, Q471, Q472		2PD601A
	Q571-Q573, Q605, Q669, Q701		2PD601A
	Q742, Q771, Q773, Q793, Q845		2PD601A
	Q851, Q914, Q916, Q925, Q936		2PD601A
	Q946		2PD601A
	Q381		2SB1260
	Q712-Q715		2SC3802K
	Q103		DTA114EK
	Q104, Q617, Q618, Q772, Q811		DTC114EK

Mark	No.	Description	Part No.
	Q101, Q102, Q105		DTC114TK
	Q886, Q887, Q894		DTC124EK
	D786, D787, D818		1SS355
	D771, D921, D981, D982		DAN202K
	D110		EC10QS04
	D761		KV1410
	D101		RB501V-40
	D640		UD22.0B
COILS AND FILTERS			
	L321 CHIP SOLID INDUCTOR		ATL7001
	L101-L104 CHIP INPEDER		DTL1028
	F541 DVD VIDEO FILTER		VTF1072
	F535, F536, F538, F539 FERRITE BEAD		VTF1073
	F537 FERRITE BEAD		VTF1074
	F1491 FERRITE BEAD		VTF1075
	F420, F523 FERRITE BEAD		VTF1076
	F199 FERRITE BEAD		VTF1077
	F704 CHIP SOLID INDUCTOR		VTF1078
	F390-F399 FERRITE BEAD		VTF1079
	F147, F181-F188 FERRITE BEAD		VTF1080
	L431, L432, L471, L591, L701		VTL1058
	CHIP COIL (22μH)		
	L761, L801 CHIP COIL (22μH)		VTL1058
	L762 CHIP COIL (1.5μH)		VTL1059
	L501, L592 CHIP COIL (0.15μH)		VTL1060
	L502, L723 CHIP COIL (10μH)		VTL1061
	L421 CHIP COIL (47μH)		VTL1063
CAPACITORS			
	C509		CCSRCH100D50
	C800		CCSRCH101J50
	C601-C604, C606, C904		CCSRCH121J50
	C902, C903		CCSRCH151J50
	C723		CCSRCH180J50
	C620		CCSRCH181J50
	C765		CCSRCH220J50
	C716, C810, C917		CCSRCH221J50
	C508, C618		CCSRCH270J50
	C914		CCSRCH390J50
	C862-C864		CCSRCH391J50
	C730, C814		CCSRCH470J50
	C616, C681		CCSRCH471J50
	C724		CCSRCH560J50
	C556, C566, C714		CCSRCH5R0C50
	C634, C806, C854, C855		CCSRCH680J50
	C107, C108		CCSRCH7R0D50
	C813		CCSRCH820J50
	C476		CCSRCH910J50
	C116, C151, C159, C162, C180		CEV101M6R3
	C280, C401, C420, C430-C440		CEV101M6R3
	C500, C501, C523, C532, C533		CEV101M6R3
	C536-C540, C801, C821		CEV101M6R3
	C755		CEV1R0M50
	C325, C384, C571, C592, C857		CEV220M16
	C859		CEV220M16
	C611, C712, C731, C733, C900		CEV220M6R3
	C912, C919, C994		CEV220M6R3
	C179, C201, C281, C321, C327		CEV470M6R3
	C396, C493, C517, C591, C701		CEV470M6R3
	C804, C996		CEV470M6R3
	C720, C787		CEVNP100M16
	C789		CEVNP2R2M35
	C908		CFHS333J16
	C788, C839, C840		CFHS473J16

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	C884, C885, C907		CFHSP104J16		R401, R402, R404, R405, R421		RA4C220J
	C686, C909		CFHSQ103J16		R423, R424, R501, R502		RA4C220J
	C882, C883		CFHSQ272J50		R998		RA4C390J
	C677		CFHSQ822J16		R2510, R2620, R2630, R2640, R4910		RS1/10S0R0J
	C843, C844, C894		CKSQYB104K25		R723		RS1/10S0R0J
	C615, C680, C713, C718, C742		CKSQYB105K10		R892		RS1/10S1R2J
	C746, C747, C751, C811		CKSQYB105K10		R573		RS1/16S1001F
	C815, C817		CKSQYB224K16		R862, R863, R866, R867		RS1/16S1002F
	C759, C893		CKSQYB474K16		R149, R166, R477, R693		RS1/16S1003F
	C206, C207, C441-C446, C519		CKSQYF225Z16		R762, R763, R766, R786, R790		RS1/16S1003F
	C527-C530		CKSQYF225Z16		R814, R817, R846, R873, R876		RS1/16S1003F
	C749, C766		CKSRYB102K50		R999		RS1/16S1003F
	C101, C121, C169, C178, C290		CKSRYB103K50		R383, R864, R865		RS1/16S1202F
	C471, C472, C574, C605, C617		CKSRYB103K50		R781, R782, R788, R900-R903		RS1/16S1502F
	C676, C700, C711, C762, C764		CKSRYB103K50		R580, R582, R783, R784		RS1/16S2202F
	C816, C830, C832, C837, C838		CKSRYB103K50		R835-R840, R871, R872, R893		RS1/16S2202F
	C853, C861, C881, C906		CKSRYB103K50		R914, R916, R936, R946		RS1/16S2202F
	C997-C999		CKSRYB103K50		R232, R236, R793, R794		RS1/16S2203F
	C983, C984		CKSRYB104K16		R884, R885, R989, R990		RS1/16S2203F
	C809		CKSRYB152K50		R712, R720, R857		RS1/16S3901F
	C692		CKSRYB153K50		R798, R800, R829, R830		RS1/16S4702F
	C641-C644, C649, C819		CKSRYB222K50		R843, R844, R854, R855, R925		RS1/16S4702F
	C931, C932		CKSRYB222K50		R927, R928, R945		RS1/16S4702F
	C847		CKSRYB333K16		R778, R833, R834		RS1/16S4703F
	C741		CKSRYB472K50		R575, R741, R742		RS1/16S5601F
	C735, C808		CKSRYB473K16		R831, R832		RS1/16S5602F
	C102-C106, C109-C115, C120		CKSRYF104Z16		R874, R877		RS1/16S6802F
	C155-C158, C160, C161		CKSRYF104Z16		R882, R883		RS1/16S8202F
	C163-C167, C170, C171		CKSRYF104Z16		R4010		VCN1058
	C173-C177, C181, C184-C187		CKSRYF104Z16		VR501 (4.7kΩ)		VCP1090
	C191, C192, C202-C205, C209		CKSRYF104Z16		VR904, VR921 (10kΩ)		VCP1092
	C231, C282-C287, C289, C291		CKSRYF104Z16		VR621, VR938 (22kΩ)		VCP1094
	C295, C296, C300-C303		CKSRYF104Z16		VR922 (10kΩ)		VCP1131
	C305-C307, C309, C311, C322		CKSRYF104Z16		Other Resistors		RS1/16S□□□J
	C326, C328, C382, C383		CKSRYF104Z16				
	C391-C393, C395, C397, C399		CKSRYF104Z16				
	C402-C417, C421-C426		CKSRYF104Z16				
	C473-C475, C481, C483, C484		CKSRYF104Z16				
	C491, C492, C502-C507		CKSRYF104Z16				
	C510-C516, C518, C520-C522		CKSRYF104Z16				
	C526, C531, C535, C553-C555		CKSRYF104Z16				
	C563, C565, C572, C573, C577		CKSRYF104Z16				
	C596, C607, C612, C613, C621		CKSRYF104Z16				
	C630, C631, C640, C671, C675		CKSRYF104Z16				
	C683, C702-C704, C721, C732		CKSRYF104Z16				
	C734, C738, C739, C750, C761		CKSRYF104Z16				
	C781, C799, C802, C803, C805		CKSRYF104Z16				
	C812, C818, C820, C822, C823		CKSRYF104Z16				
	C829, C831, C858, C901, C911		CKSRYF104Z16				
	C918, C921, C930, C971, C972		CKSRYF104Z16				
	C980-C982, C995		CKSRYF104Z16				
	VC510 (20pF)		VCM1008				
	VC765 (40pF)		VCM1010				

RESISTORS

R109, R110, R112, R195
R414-R419, R920
R101-R106, R148, R153-R157
R161, R162, R201, R202
R251-R257, R265, R266, R274

RA4C103J
RA4C103J
RA4C220J
RA4C220J
RA4C220J

OTHERS

CN161, CN271 PH CONNECTOR 2P S2B-PH-SM3
CN601, CN602 B TO B CONNECTOR 60P VKN1293
CN109 7P FFC CONNECTOR VKN1299
CN101 13P FFC CONNECTOR VKN1305
CN391 24P FFC CONNECTOR VKN1316
CN902 B TO B CONNECTOR 14P VKN1324
CN261, CN502, CN702 VKN1345
26P FFC CONNECTOR
CN251 30P FFC CONNECTOR VKN1349
X501 CHIP CRYSTAL (27.00MHz) VSS1086
X201 CHIP CERAMIC (5.00MHz) VSS1102
X301 CHIP CERAMIC (33MHz) VSS1105
X101 CHIP CERAMIC (20MHz) VSS1106

Mark	No.	Description	Part No.
------	-----	-------------	----------

P FTSB ASSY

SEMICONDUCTORS

IC204, IC306, IC403	BA10393F
IC301	MC14577CF
IC302, IC303, IC305, IC401	NJM072BM
IC205	NJM2100M
IC304, IC402	NJM4580M

Q301, Q309, Q401-Q403	2PB709A
Q302, Q303, Q305, Q404	2PD601A
Q304, Q308	DTC114EK
D205, D206, D303, D305-D307	1SS355
D310, D401, D402	1SS355
D308	DAN202K

CAPACITORS

C316	CCSRCH101J50
C401, C501	CEV100M16
C303	CFHS473J16
C306, C408	CFHSQ471J50
C209, C210, C305	CKSQYB105K10

C308, C403, C406	CKSRYB102K50
C311	CKSRYB472K50
C313	CKSRYB473K16
C201, C211, C302, C304, C307	CKSRYF104Z16
C309, C312, C314, C315, C402	CKSRYF104Z16

C404, C407	CKSRYF104Z16
C310	CCSRCH101J50
C405	CKSQYB224K16

RESISTORS

R322	RS1/16S1001F
R405	RS1/16S1801F
R406	RS1/16S3601F
R321	RS1/16S6801F
Other Resistors	RS1/16S□□□J

OTHERS

CN101, CN102 B TO B CONNECTOR 30P VKN1294

Q MGYCB ASSY

SEMICONDUCTORS

IC301	CXD2046Q
IC202	LC32464P-80
IC102, IC103	MB81C1501PF
IC101	PD3212A
IC201	PDC016A

Q402, Q404, Q407, Q411, Q414	2PB709A
Q401, Q403, Q412, Q413	2PD601A
Q408-Q410, Q415, Q416	2SC1740S
Q417, Q420	DTA124EK
Q418, Q419, Q421	DTC124EK

COILS

L401-L403	LAU220J
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CAPACITORS

C433	CCSQCH100D50
C206, C401, C404	CCSQCH220J50
C405	CCSQCH470J50
C403	CCSQCH560J50
C402	CCSQCH680D50

C411	CCSQCH910J50
C101, C103, C109, C111, C113	CEAS101M10
C115, C201, C204, C207	CEAS101M10
C209, C210, C212, C214, C216	CEAS101M10

Mark	No.	Description	Part No.
------	-----	-------------	----------

C301, C305, C309, C311, C317	CEAS101M10
C319, C422, C424, C426, C429	CEAS101M10
C431, C434, C436, C438	CEAS101M10
C303	CKSQYB102K50
C102, C104, C110, C112, C114	CKSQYF104Z25

C116-C118, C202, C203, C205	CKSQYF104Z25
C208, C211, C213, C215, C217	CKSQYF104Z25
C302, C304, C306-C308, C310	CKSQYF104Z25
C312-C316, C318, C320-C322	CKSQYF104Z25
C406, C407, C413, C414, C423	CKSQYF104Z25

C425, C427, C428, C430, C432	CKSQYF104Z25
C435, C437, C439, C442, C447	CKSQYF104Z25

RESISTORS

R424	RN1/10SE1801D
R422	RN1/10SE2201D
R309	RN1/10SE2700D
R425	RN1/10SE2702D
R310, R420, R421	RN1/10SE3301D

R312, R426	RN1/10SE4701D
R311	RN1/10SE5601D
VR301 (22KΩ)	PCP1030
Other Resistors	RS1/10S□□□J

OTHERS

CN103 16P FFC CONNECTOR	52045-1645
2P PIN JACK	AKB7076
CN101 B TO B CONNECTOR 12P	BTFN12P-3RD7
CN102 B TO B CONNECTOR 20P	BTFN20P-3RD7
4P MINI DIN SOCKET	VKN1078

SCREW TERMINAL	VNE1948
SHIELD CASE A	VNF1098
SHIELD CASE C	VNF1100

R MCRB ASSY

SEMICONDUCTORS

IC16, IC17	NJM2100M
IC101	PD9014A
IC51	TC4W53F
IC15, IC52	TC74HC4053AF
IC11	TC74HCU04AF

IC171	TC74VHCT374F
IC18	TC7WU04F
Q252, Q59	2PB709A
Q11	2PD601A
Q13	DTC124EK

Q55, Q56, Q60	1MT1A
Q254, Q51	1MX1
Q12, Q253, Q52-Q54	1MZ1A
Q57, Q58	1MZ1A
D11	SVC201SPA

COILS

L271	LAU270J
L272	LAU390J
L273	LAU430J
L11	LFA220J

CAPACITORS

C274, C30	CCSQCH100D50
C22	CCSQCH180J50
C15	CCSQCH221J50
C275, C277	CCSQCH330J50
C276	CCSQCH390J50

Mark	No.	Description	Part No.
		C171, C173, C174, C179	CCSQCH470J50
		C23, C92, C93	CCSQCH470J50
		C24	CCSQCH910J50
		C16, C19	CEJA101M10
		C1, C110, C122, C126, C152	CEJA470M10
		C2, C208, C301, C305, C306	CEJA470M10
		C313, C4, C52, C53, C55	CEJA470M10
		C62, C64	CEJA470M10
		C12	CFTXA103J50
		C13	CFTXA334J50
		C11, C18, C20, C25, C26	CKSQYF103Z50
		C500	CKSQYF103Z50
		C107, C109, C113, C115, C121	CKSQYF104Z25
		C125, C153, C17, C207, C215	CKSQYF104Z25
		C217, C219, C220, C255, C28	CKSQYF104Z25
		C302-C304, C307-C312, C314	CKSQYF104Z25
		C51, C54, C56-C61, C65	CKSQYF104Z25
		C67	CKSQYF104Z25
		C14	CQMZA682J50
		VC11 (20pF)	VCN-008
RESISTORS			
		R52	RN1/10SE1801D
		R51	RS1/10S1000F
		R74	RS1/10S1001F
		R77	RS1/10S10R0F
		R71	RS1/10S1501F
		R72	RS1/10S1802F
		R76	RS1/10S27R0F
		R79	RS1/10S3300F
		R80	RS1/10S3900F
		R78	RS1/10S39R0F
		R73	RS1/10S47R0F
		R75	RS1/10S5600F
		R81	RS1/10S68R0F
		VR91 (330kΩ)	VCP1143
		Other Resistors	RS1/10S□□□J
OTHERS			
	X11	CRYSTAL (3.579545MHz)	VSS1107
		PCB BINDER	VEF1040
	CN12	26P FFC CONNECTOR	VKN1202
	KN102	EARTH METAL FITTING	VNF1084

6. ADJUSTMENT (調整方法)

6.1 ADJUSTMENT ITEMS AND LOCATION (調整項目と調整位置)

■ Adjustment Items

[Mechanical Part]

CLD

- ① Tilt Offset Adjustment
(チルトオフセット調整)
- ② Tangential Direction Angle Adjustment for Side A
(A面タンジェンシャル傾き調整)
- ③ Spindle Motor Centering Adjustment for Side A
(A面スピンドル芯出し調整)
- ④ Crosstalk Check and Fine Tilt Offset Adjustment for Side A
(A面クロストーク確認及び、チルトオフセット微調整)
- ⑤ Focus Servo Loop Gain Adjustment
(フォーカスサーボループゲイン調整)
- ⑥ Tracking Servo Loop Gain Adjustment
(トラッキングサーボループゲイン調整)
- ⑦ Tangential Direction Angle Adjustment for Side B
(B面タンジェンシャル傾き調整)
- ⑧ Spindle Motor Centering Adjustment for Side B
(B面スピンドル芯出し調整)
- ⑨ Crosstalk Check and Fine Tilt Offset Adjustment for Side B
(B面クロストーク確認及び、チルトオフセット微調整)

DVD

- ⑩ DVD Focus S-curve Level Coarse Adjustment
(DVDフォーカスS字レベル粗調整)
- ⑪ RF MAX Adjustment
(RF MAX調整)
- ⑫ Jitter Adjustment
(ジッター調整)
- ⑬ Tracking Error Level Adjustment
(トラッキングエラーレベル調整)
- ⑭ DVD Focus S-curve Level Fine Adjustment
(DVDフォーカスS字レベル微調整)

[Electrical Part]

CLD

- ① Video Level Adjustment
(ビデオレベル調整)
- ② PLL Offset Adjustment
(PLLオフセット調整)
- ③ Y Output Level Adjustment
(Y出力レベル調整)

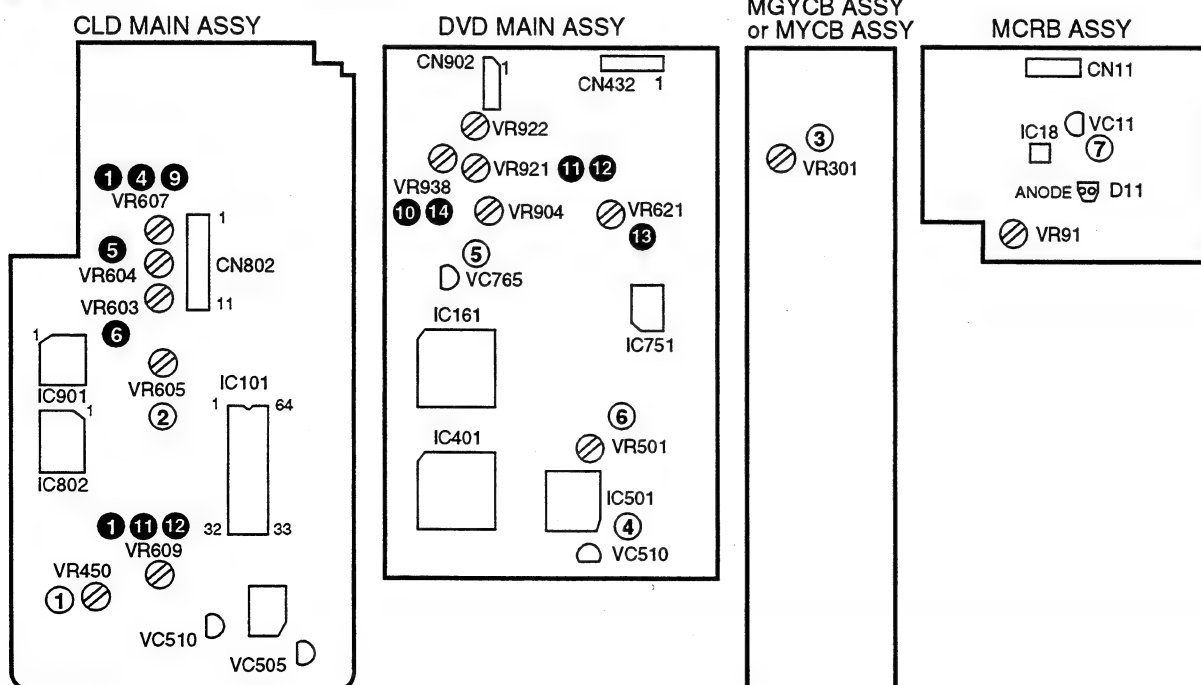
DVD

- ④ Master Clock Adjustment
(マスタークロック調整)
- ⑤ VCO Offset Adjustment
(VCOオフセット調整)
- ⑥ Video Output Adjustment
(ビデオ出力調整)

MCRB

- ⑦ MCRB Master CLK Adjustment
(MCRBマスターCLK調整)
- ⑧ MCRB Inverter Burst Adjustment
(MCRB反転バースト調整)

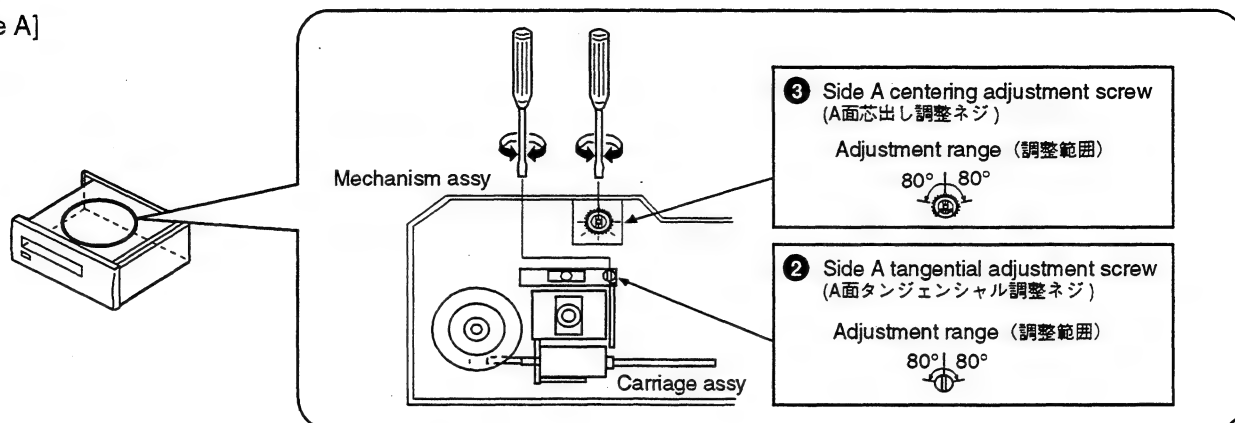
■ Adjustment Points (PCB Part)



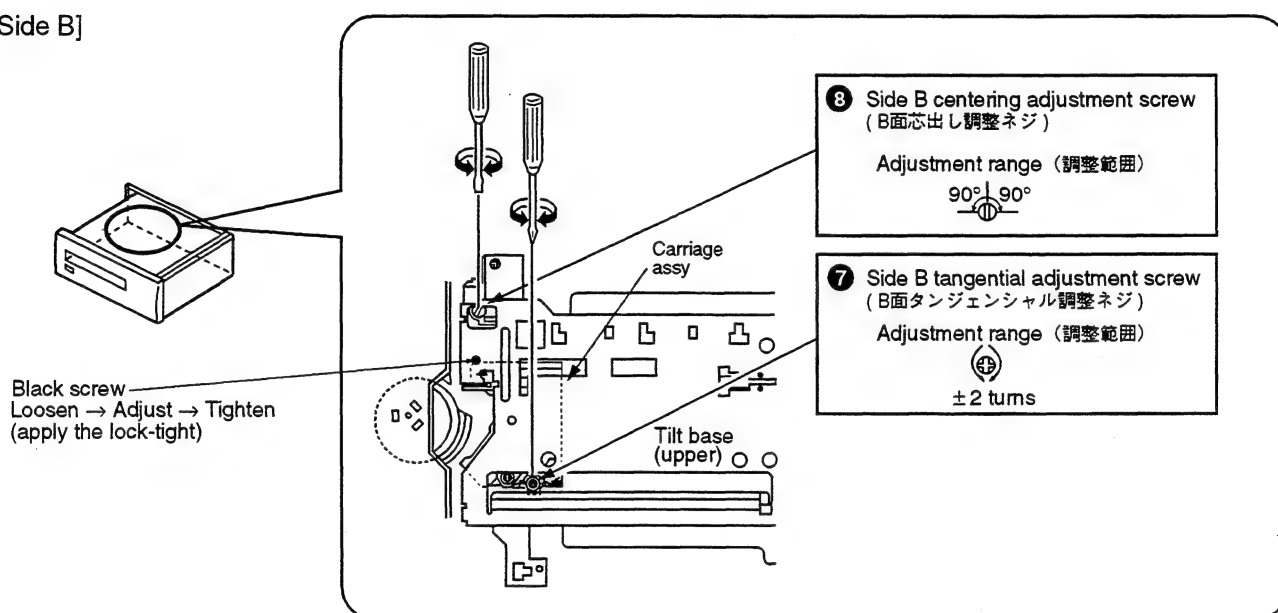
■ Adjustment Points (Mechanism Part)

CLD

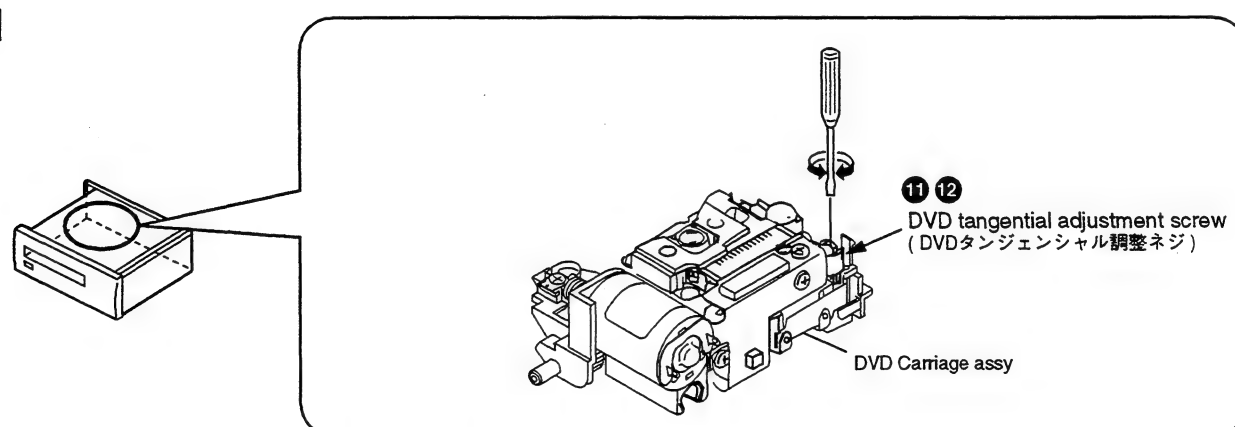
[Side A]



[Side B]










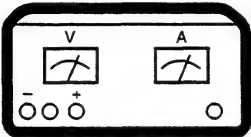
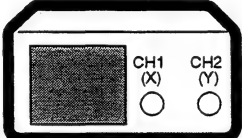
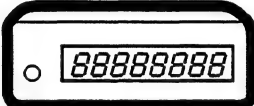
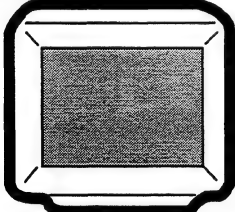
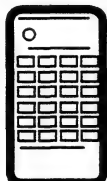
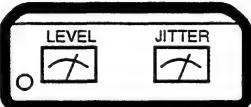

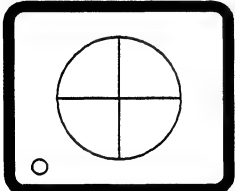


DVD



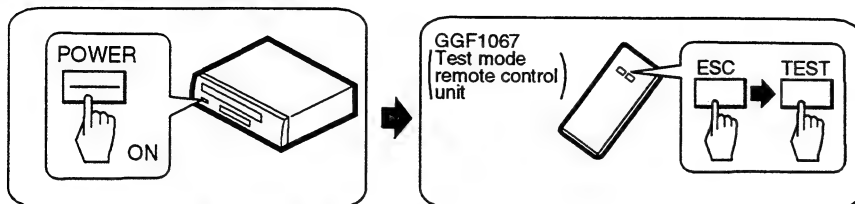
Note : Apply the lock-tight.
(調整ネジは、調整後ボンドロックする。)

6.2 JIGS AND MEASURING INSTRUMENTS (調整に必要な治工具類)

 <p>CD test disc (YEDS-7)</p>	 <p>LD test disc (GGV1012)</p>	 <p>DVD test disc (DVD-MJK1)</p>	 <p>⊖ Screwdriver (medium)</p>
 <p>⊖ Screwdriver (small)</p>	 <p>⊕ Precise screwdriver</p>	 <p>⊖ Precise screwdriver</p>	 <p>⊕ Screwdriver (large)</p>
 <p>⊕ Screwdriver (medium)</p>	 <p>DC power supply</p>	 <p>Dual-trace oscilloscope (with delay) Frequency band $\geq 40\text{MHz}$</p>	 <p>Frequency counter Display digit $\geq 8\text{-digit}$</p>
 <p>TV monitor</p>	 <p>Test mode remote control unit (GGF1067)</p>	 <p>Jitter meter</p>	 <p>Equalizer unit</p>
 <p>Vector scope</p>			

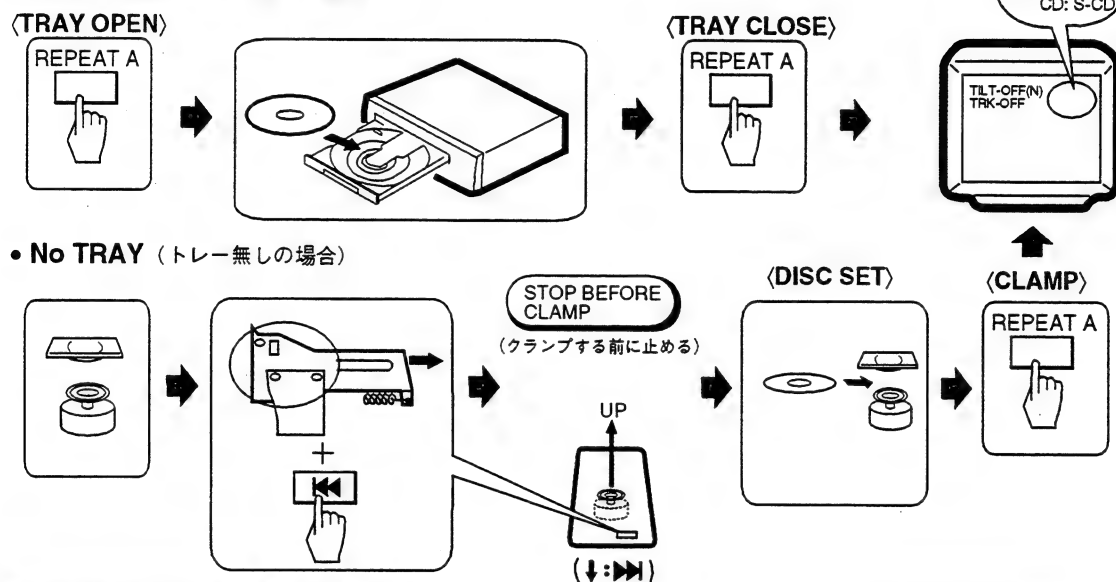
6.3 TEST MODE (テストモード)

TEST MODE: ON

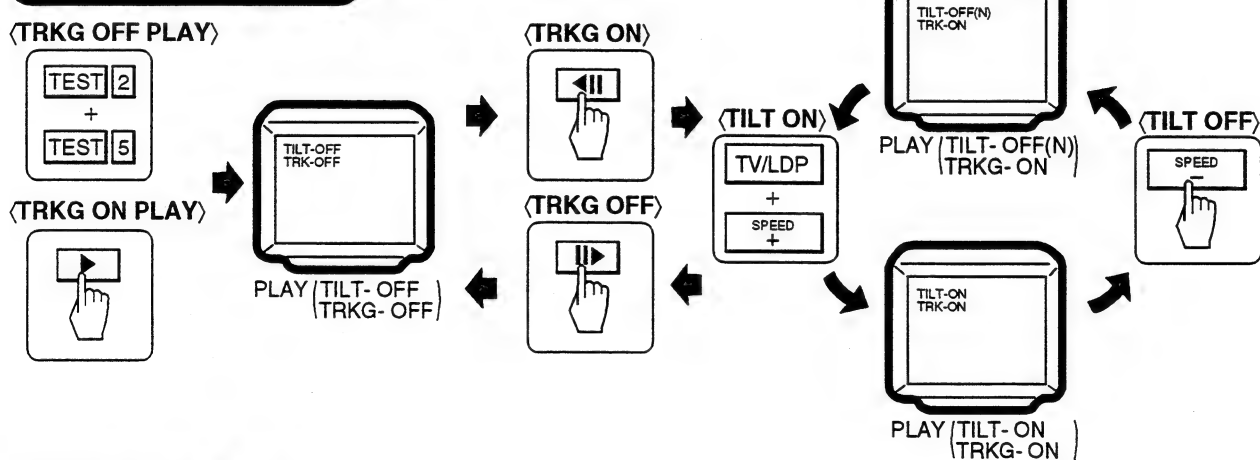


TEST MODE: DISC SET

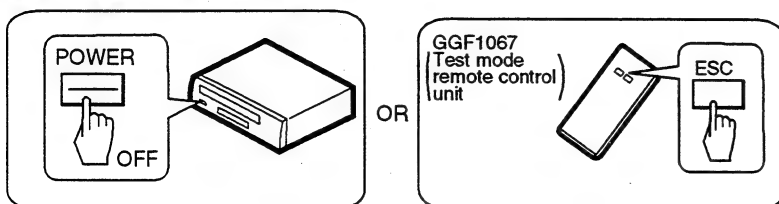
- **With TRAY** (トレイ有りの場合)



TEST MODE: PLAY



TEST MODE: OFF



6.4 NECESSARY ADJUSTMENT POINTS (必要な調整項目)

When (このような時)

Adjustment Points

■ EXCHANGE MECHANISM ASSY PARTS
(メカASSY部品を交換したとき)Exchange pickup (CLD)
(CLDのピックアップを交換したとき)

Mechanical point ①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑨

Electric point _____

Exchange pickup (DVD)
(DVDのピックアップを交換したとき)

Mechanical point ⑩, ⑪, ⑫, ⑬, ⑭

Electric point _____

Exchange spindle motor
(スピンドルモータを交換したとき)

Mechanical point ③, ⑧

Electric point _____

■ EXCHANGE PCB ASSY
(PCB ASSYを交換したとき)Exchange board
CLD MAIN ASSY
(マザーボードを交換したとき)

Mechanical point ①, ④, ⑤, ⑥, ⑨

Electric point _____

Note : ①, ② and ③ are adjusted already. (①, ②, ③は調整済)

Exchange board
DVD MAIN ASSY
(マザーボードを交換したとき)

Mechanical point ⑩, ⑪, ⑫, ⑬, ⑭

Electric point _____

Note : ④, ⑤ and ⑥ are adjusted already. (④, ⑤, ⑥は調整済)

Exchange board
MCRB ASSY
(MCRB ASSYを交換したとき)

Mechanical point _____

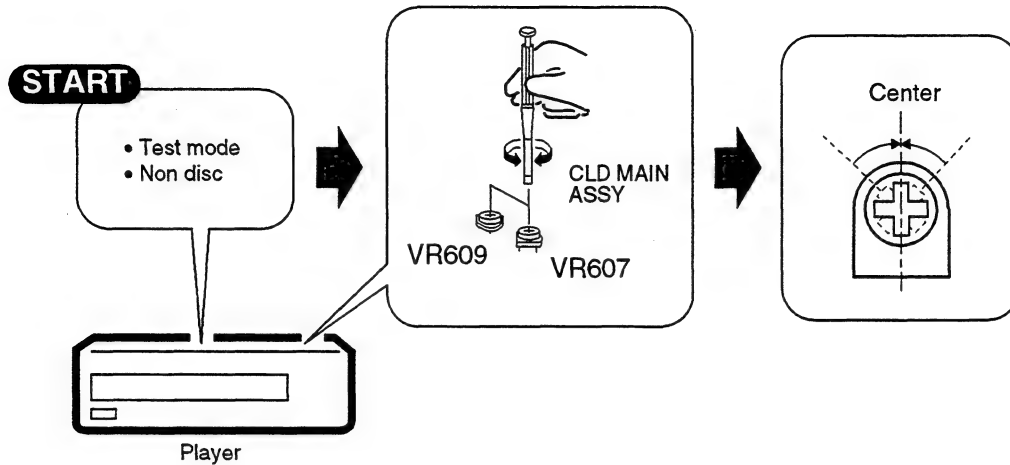
Electric point _____

Note : ⑦ and ⑧ is adjusted already. (⑦, ⑧は調整済)

6.5. MECHANICAL ADJUSTMENT (機構系の調整)

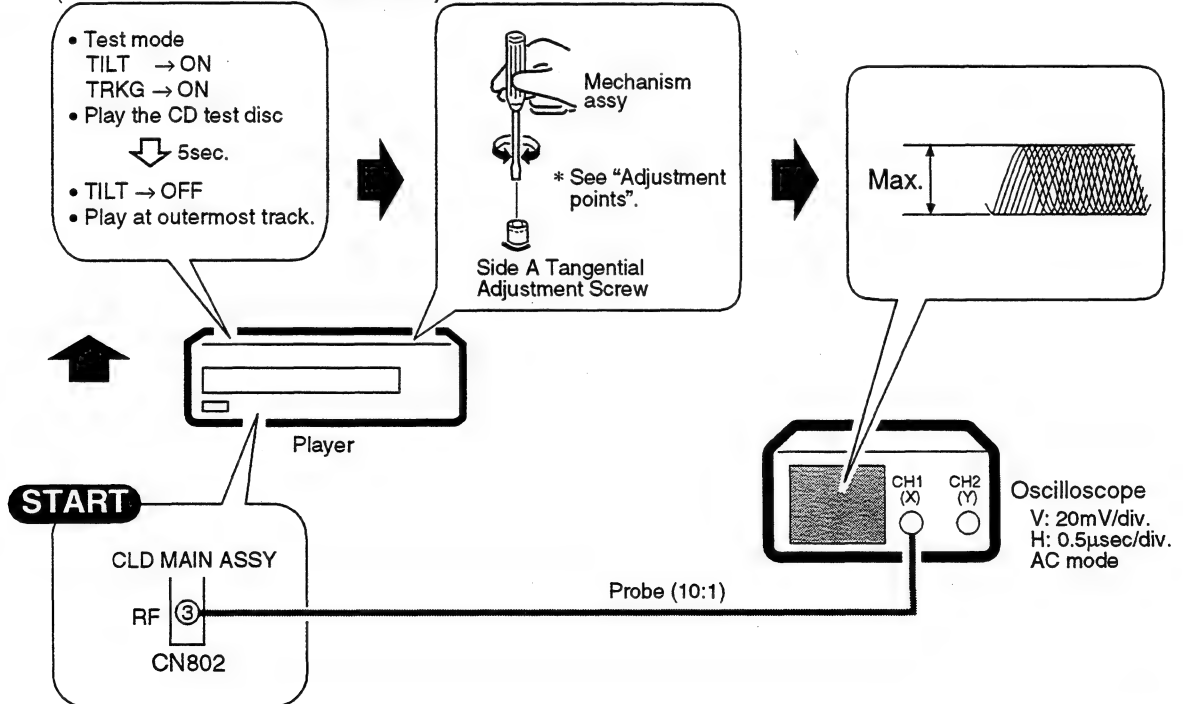
1 Tilt Offset Adjustment

(チルトオフセット調整)



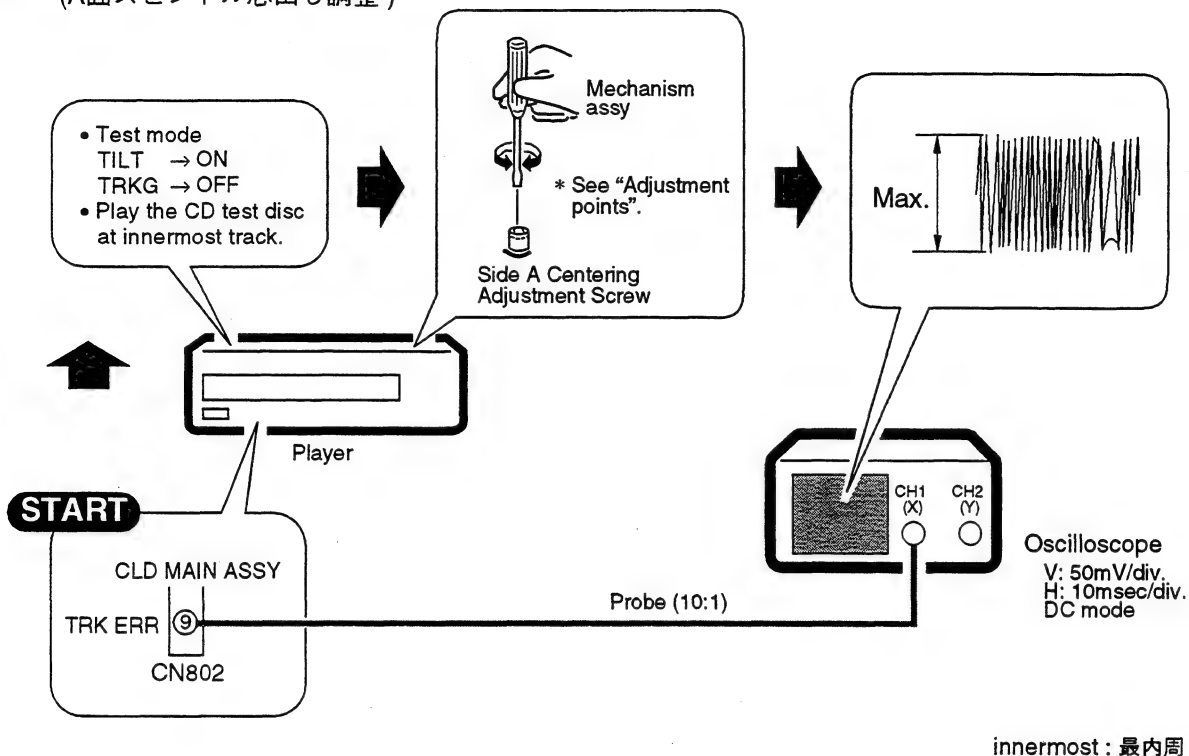
2 Tangential Direction Angle Adjustment for Side A

(A面タンジェンシャル傾き調整)

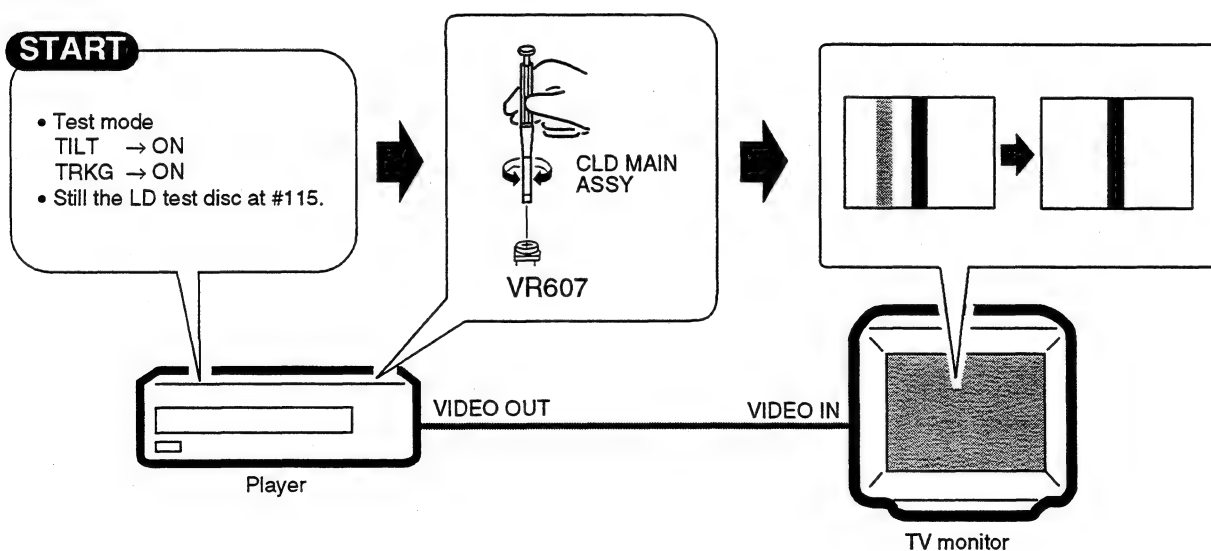


outermost : 最外周

3 Spindle Motor Centering Adjustment for Side A (A面スピンドル芯出し調整)

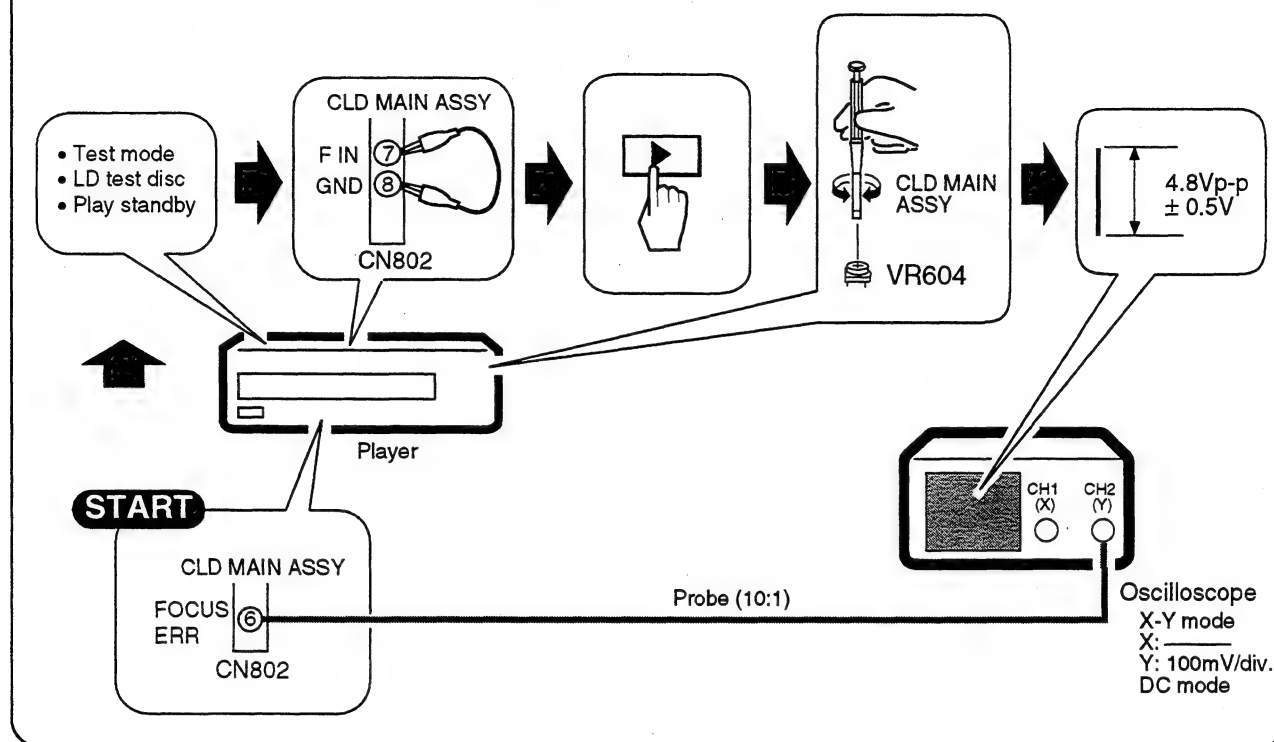


4 Crosstalk Check and Fine Tilt Offset Adjustment for Side A (A面クロストーク確認及び、チルトオフセット微調整)



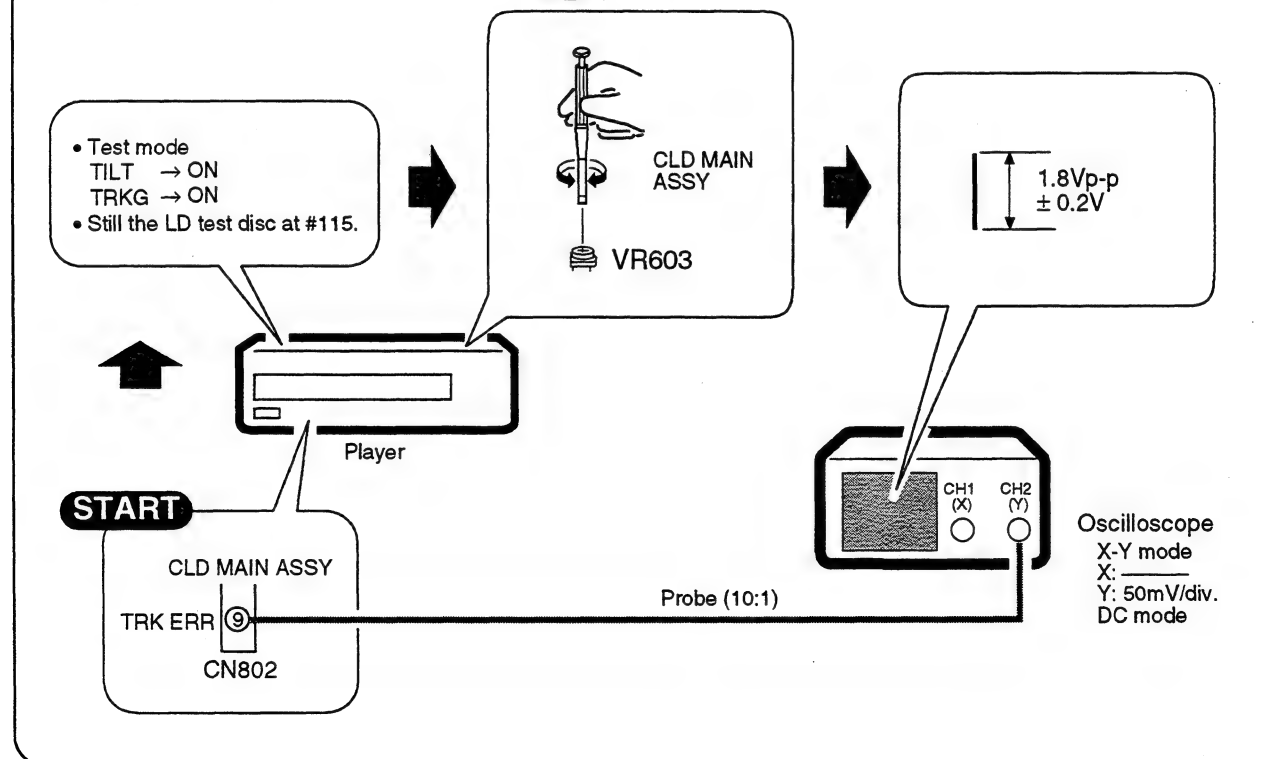
5 Focus Servo Loop Gain Adjustment

(フォーカスサーボループゲイン調整)

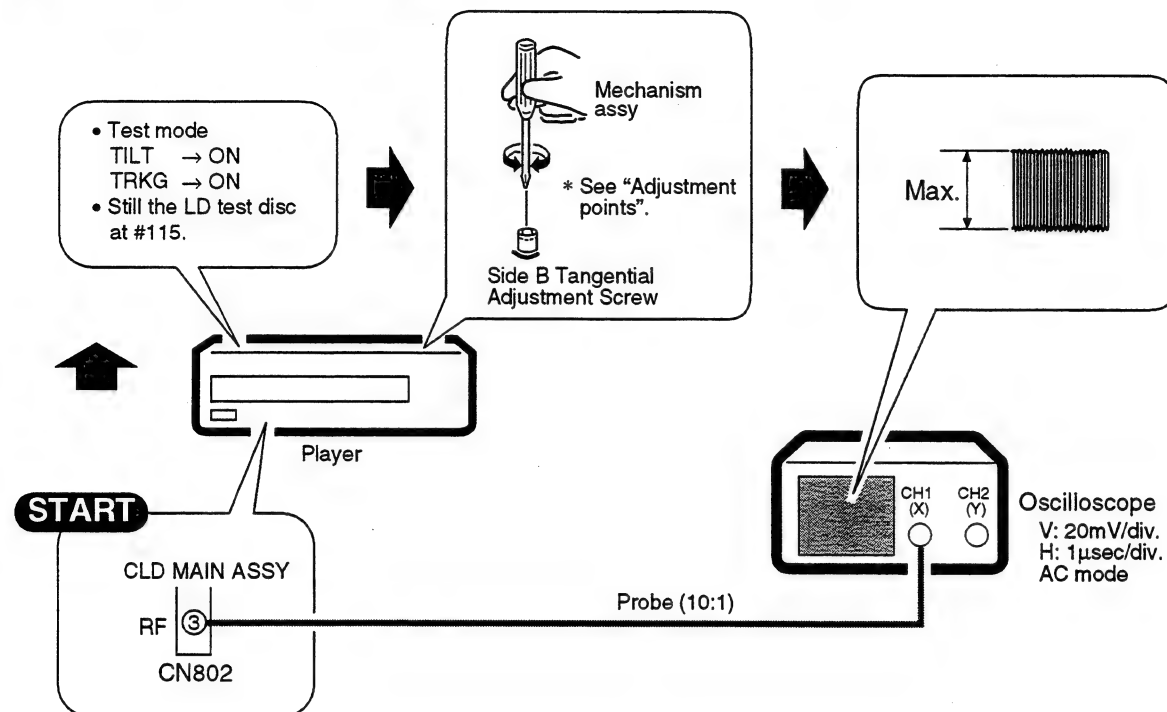


6 Tracking Servo Loop Gain Adjustment

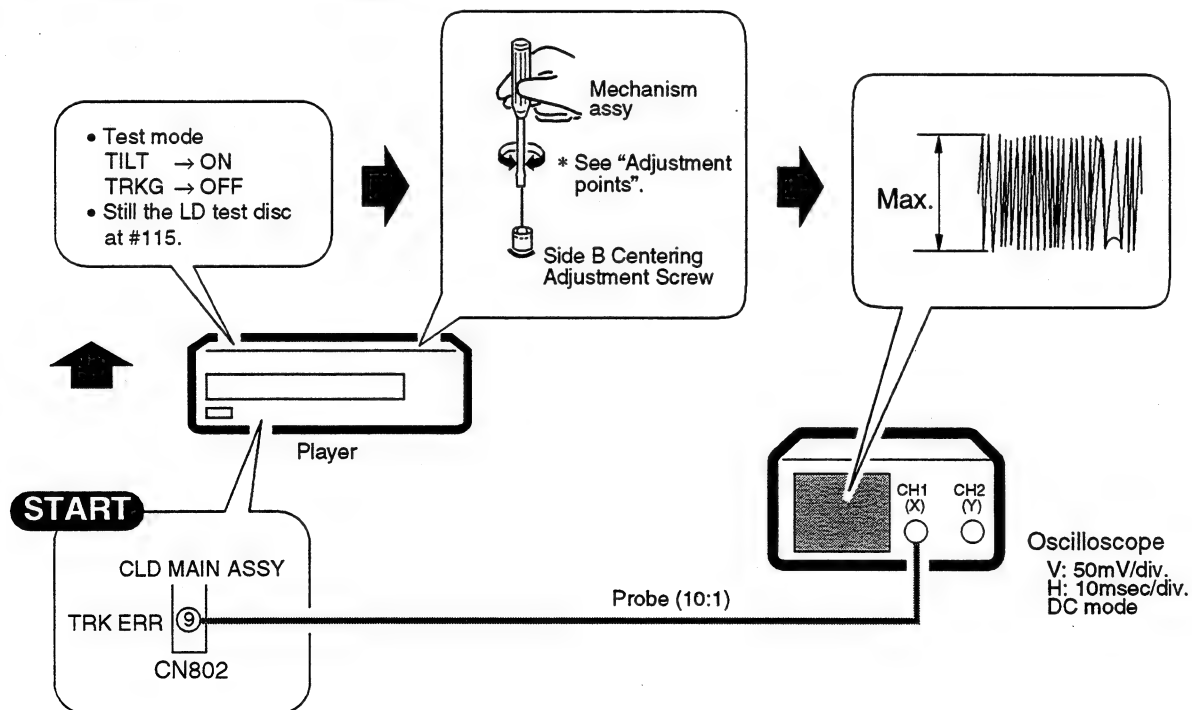
(トラッキングサーボループゲイン調整)



7 Tangential Direction Angle Adjustment for Side B (B面タンジェンシャル傾き調整)



8 Spindle Motor Centering Adjustment for Side B (B面スピンドル芯出し調整)

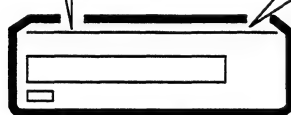
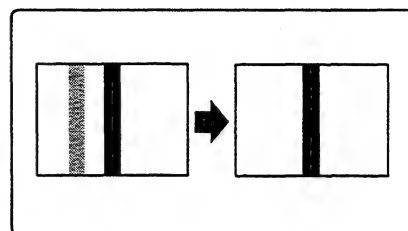
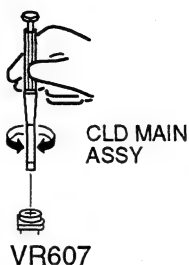


9 Crosstalk Check and Fine Tilt Offset Adjustment for Side B

(B面クロストーク確認及び、チルトオフセット微調整)

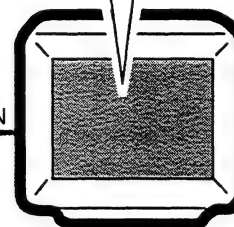
START

- Test mode
TILT → ON
TRKG → ON
- Still the LD test disc at #115.



VIDEO OUT

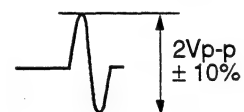
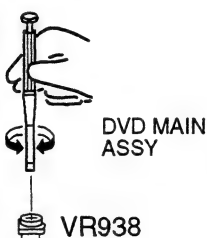
VIDEO IN



10 DVD Focus S-curve Level Coarse Adjustment

(DVDフォーカスS字レベル粗調整)

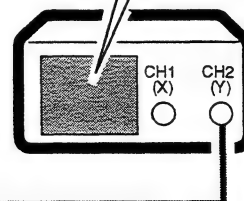
- Test mode
- DVD test disc
- Focus Up and Down



START

DVD MAIN ASSY
FOCS ERR ⑧
CN902

Probe (10:1)



Oscilloscope
V: 50mV/div.
H: 10msec/div.
DC mode

11 RF MAX Adjustment (RF MAX調整)

- Test mode
TRKG → OFF
- Play the DVD test disc
at outermost track.



DVD carriage
assy
* See "Adjustment
points".
DVD Tangential
Adjustment Screw

DVD MAIN ASSY
VR921

RF Level MAX.

LEVEL



CHECK

RF Level 0.6V~1.2V
(AGC : OFF)
(BIT : 11T)
(1:1 Probe)

Jitter meter

START

DVD MAIN ASSY
RF MIRR ⑤
CN902

Equalizer unit

outermost : 最外周

12 Jitter Best Adjustment (ジッターベスト調整)

- Test mode
TRKG → ON
- Play the DVD test disc
at outermost track.



DVD carriage
assy
* See "Adjustment
points".
DVD Tangential
Adjustment Screw

DVD MAIN ASSY
VR921

TILT UP/DOWN
(←, →)

Jitter MIN.

JITTER

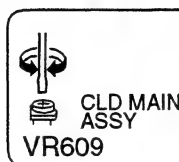


CHECK

RF Level 0.8V~1.4V
(AGC : ON)
(BIT : 11T)
(1:1 Probe)

TILT ERROR : 7

TV monitor



CLD MAIN
ASSY
VR609

START

DVD MAIN ASSY
RF MIRR ⑤
CN902

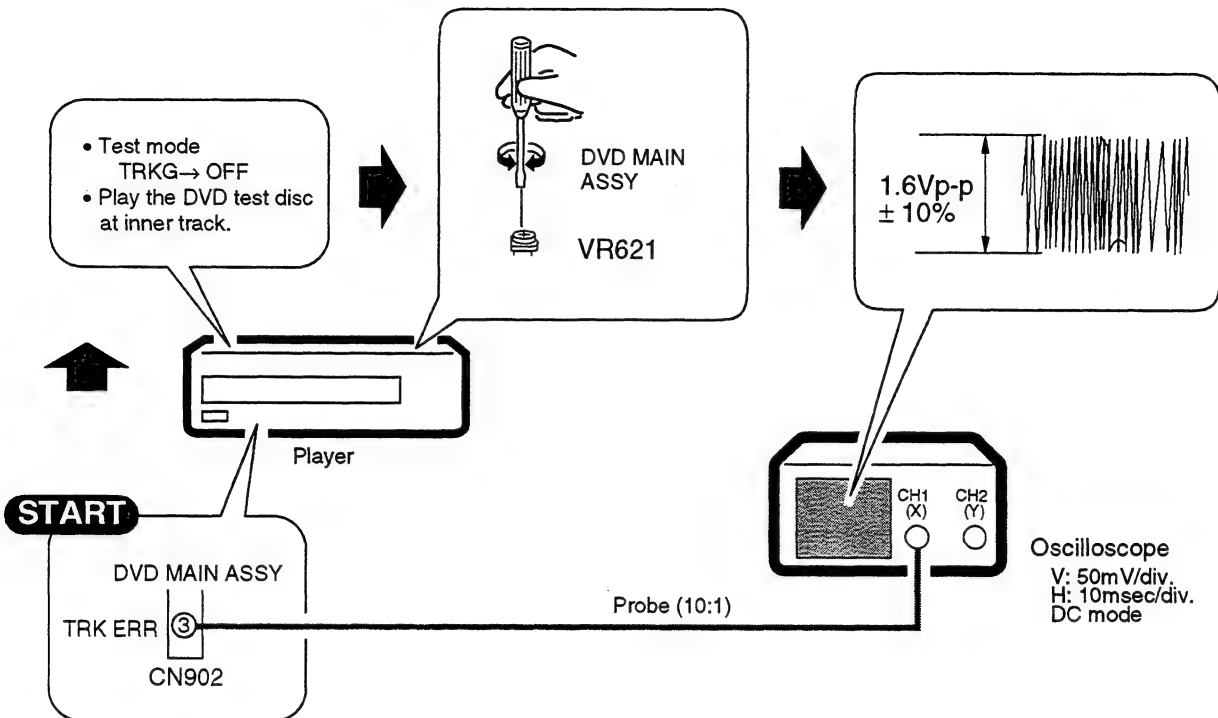
Equalizer unit

Jitter meter

outermost : 最外周

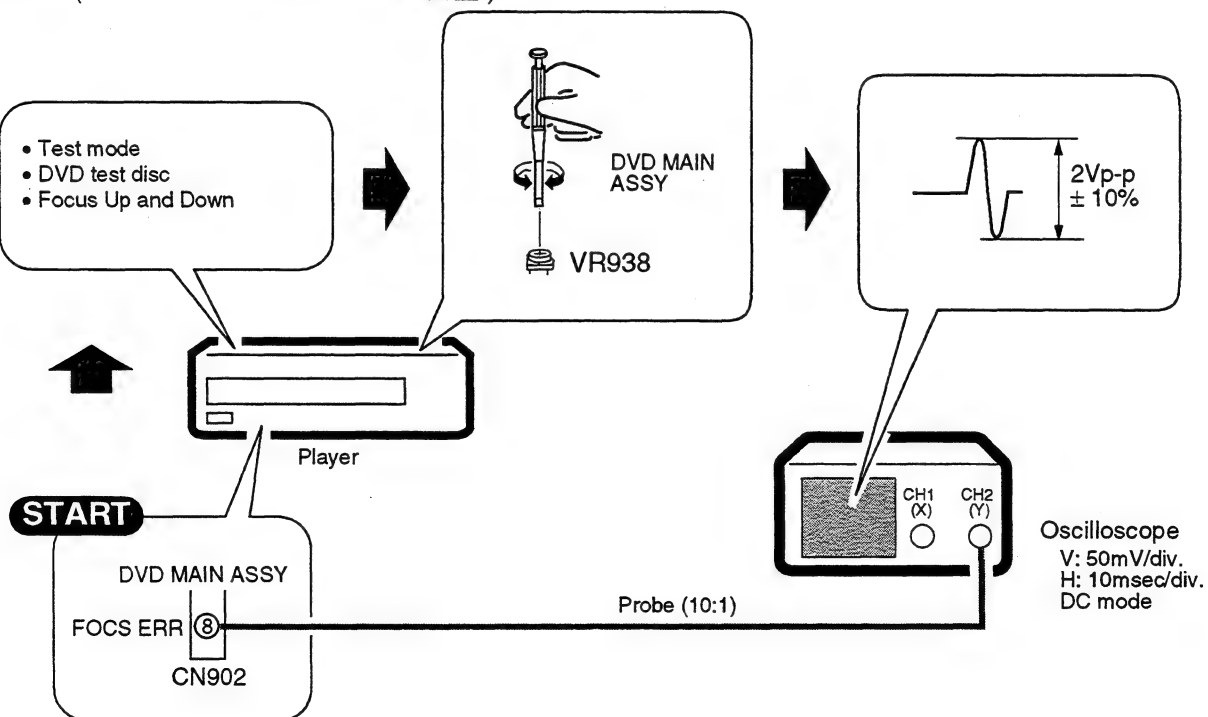
13 Tracking Error Level Adjustment

(トラッキングエラーレベル調整)



14 DVD Focus S-curve Level Fine Adjustment

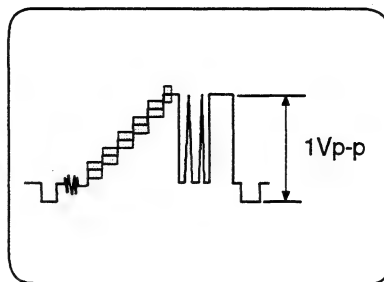
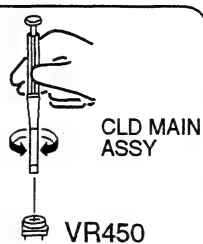
(DVDフォーカスS字レベル微調整)



6.6 ELECTRICAL ADJUSTMENT (電気系の調整)

① Video Level Adjustment (ビデオレベル調整)

- Normal mode
- Still the LD test disc at #19900.



START

TV monitor

VIDEO IN

Player (Rear)

Probe (10:1)

Oscilloscope
V: 20mV/div.
H: 10μsec/div.
AC mode

② PLL Offset Adjustment (PLLオフセット調整)

(PLLオフセット調整)

- Test mode
TILT → OFF
TRKG → OFF
- Play the CD test disc.

〈CHECK for PLL UNLOCK〉

CLD MAIN ASSY

FSEQ

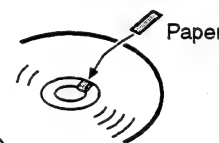
IC101

GND LEVEL

Note:

Example
E1 :
— 3.8V

Note:
if not → attach the paper
to the disc.



- Test mode
TILT → ON
TRKG → ON
- Play the CD test disc.

Player

CLD MAIN ASSY

VR605

Same voltage
E2 :
— 3.8V
E1 = E2

START

CLD MAIN ASSY

IC901

31

L.P.F

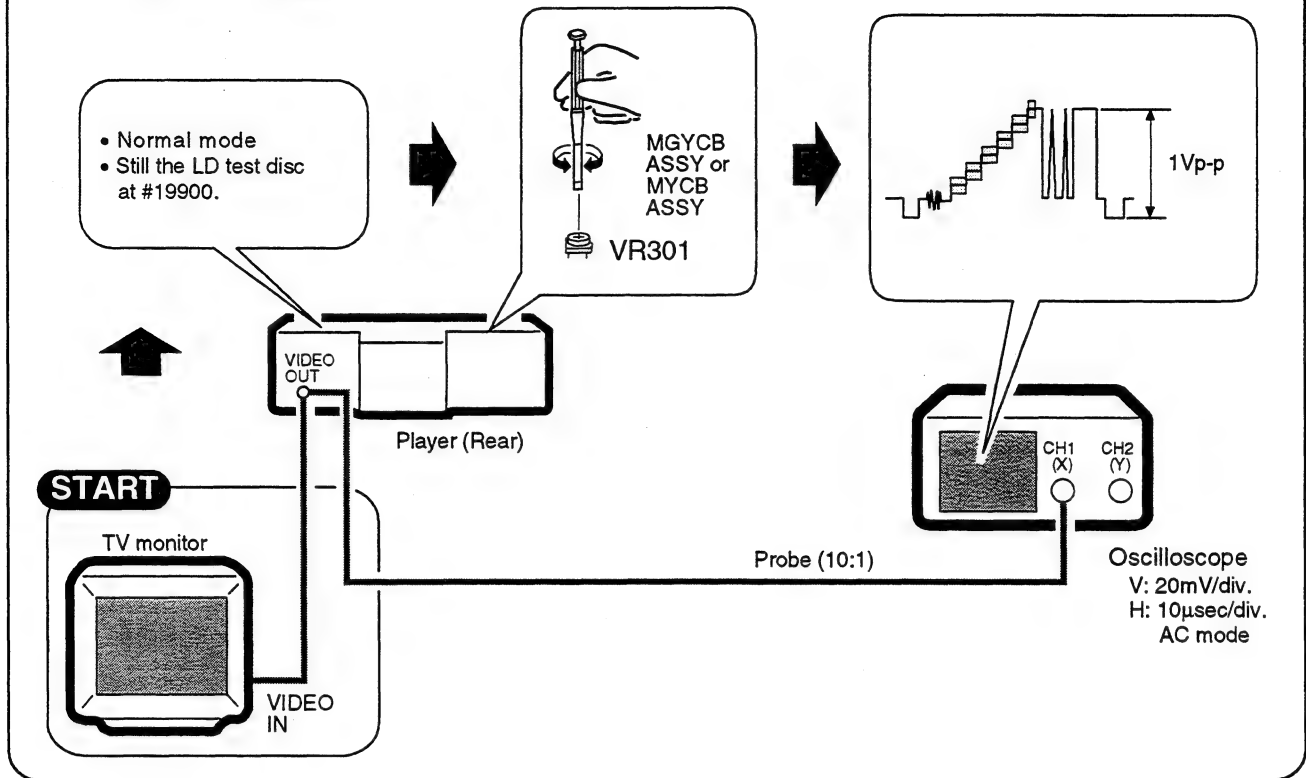
1kΩ

1μF

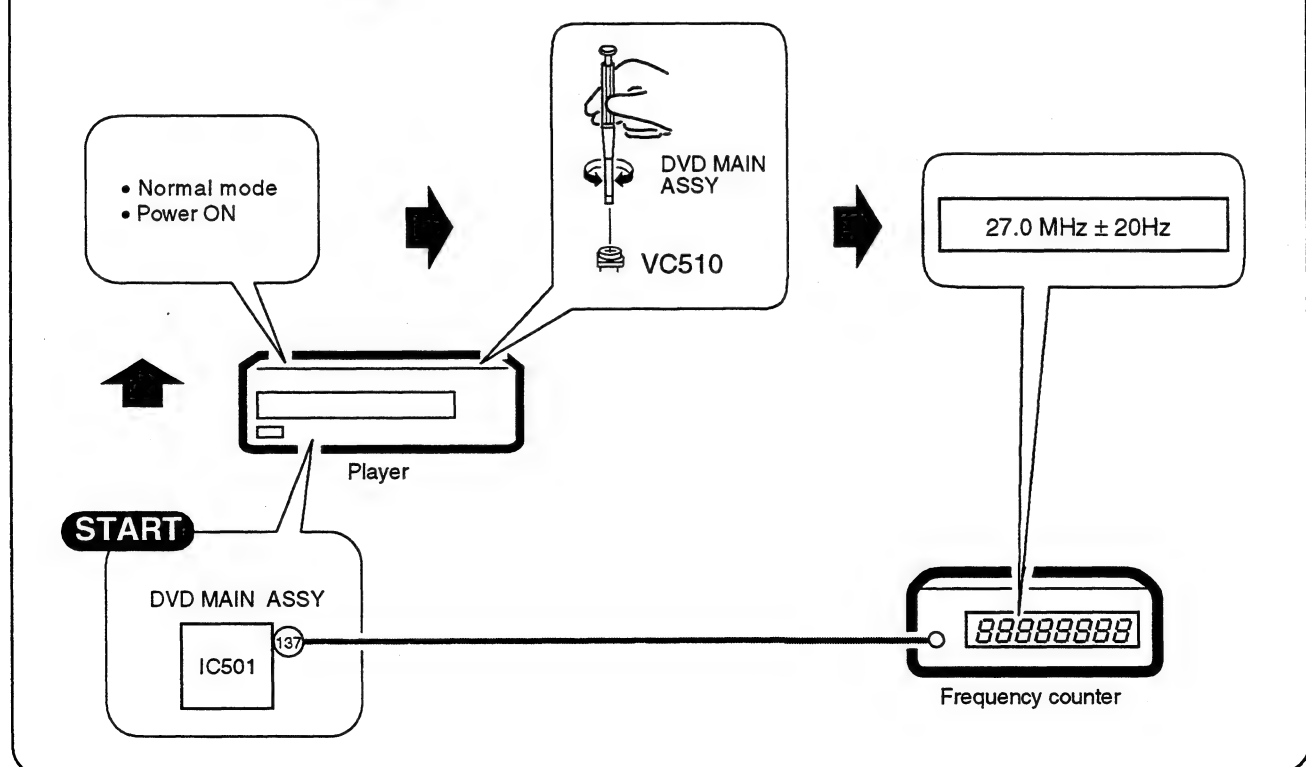
Probe (10:1)

Oscilloscope
V: 50mV/div.
H: 5msec/div.
DC mode

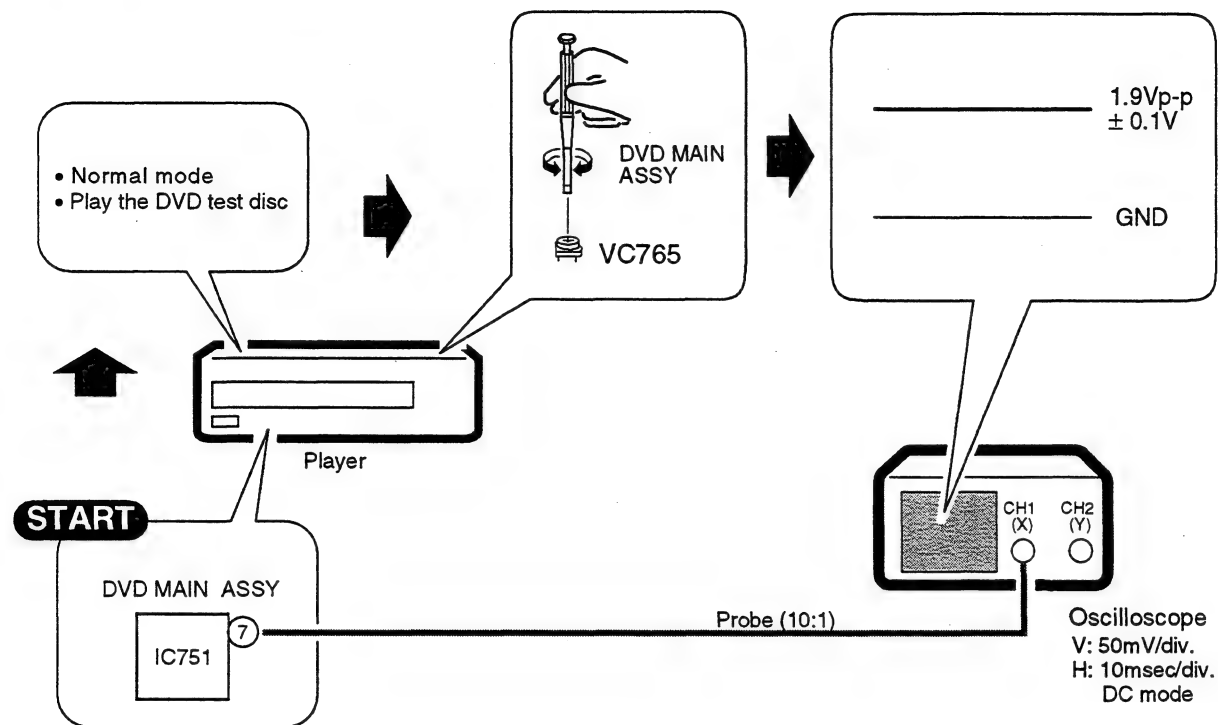
③ Y Output Level Adjustment (Y出力レベル調整)



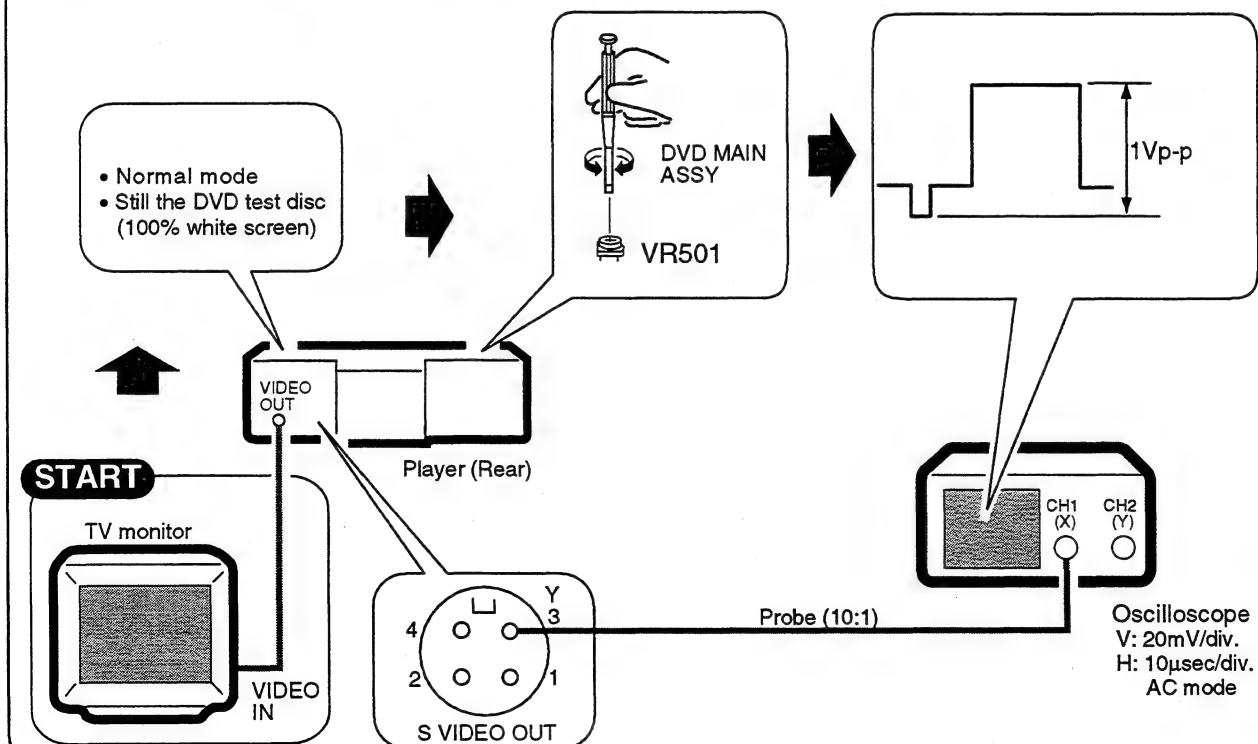
④ Master Clock Adjustment (マスタークロック調整)



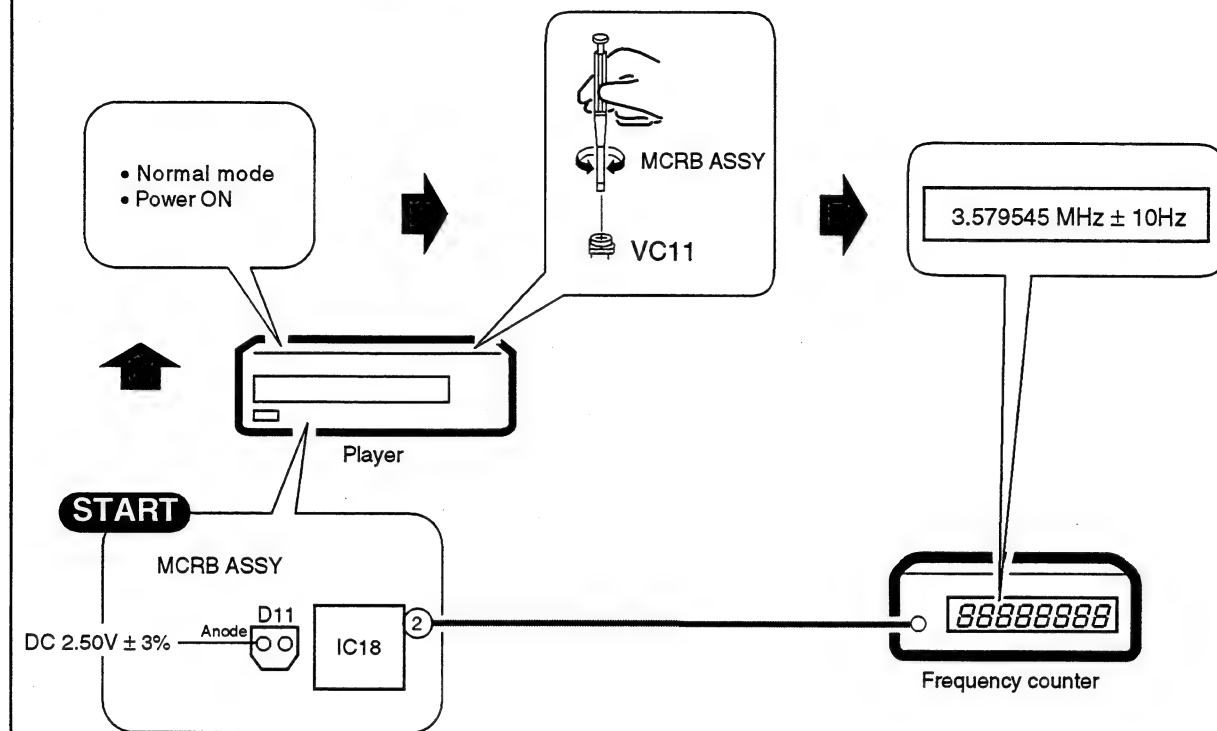
⑤ VCO Offset Adjustment (VCOオフセット調整)



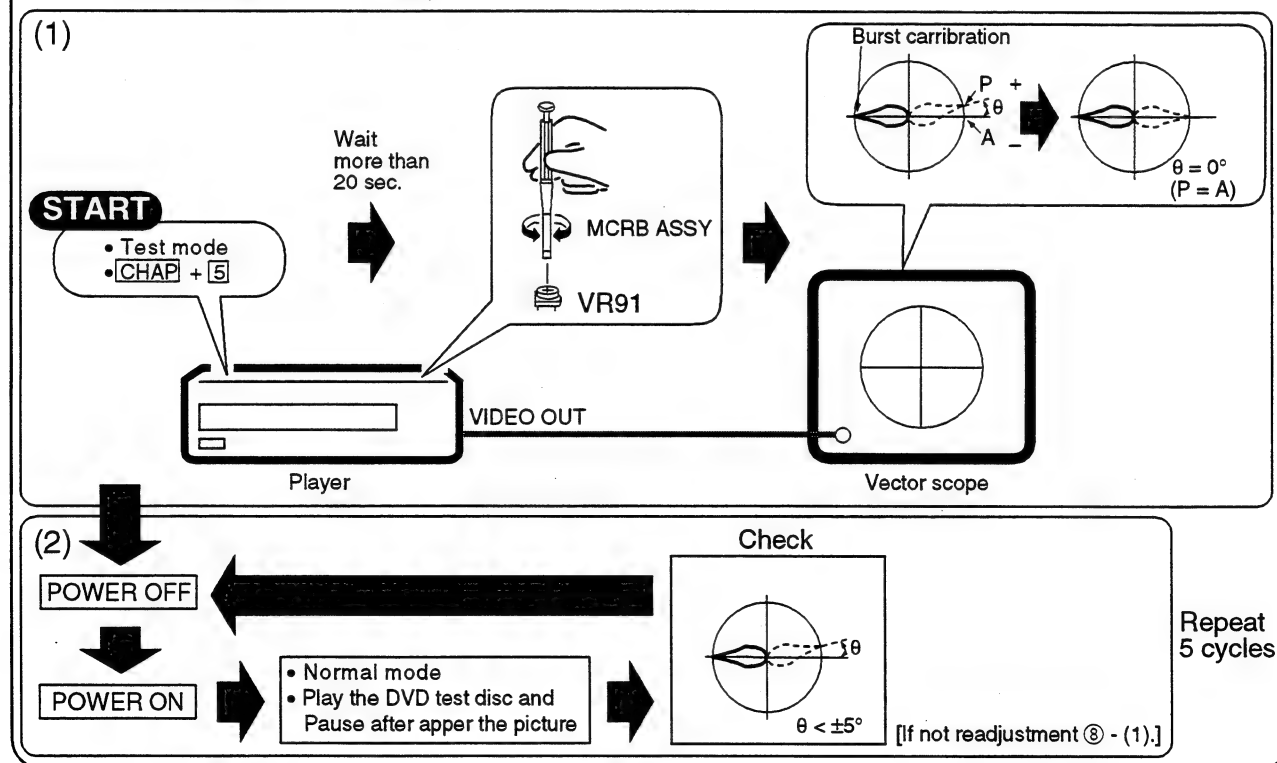
⑥ Video Output Adjustment (ビデオ出力調整)



⑦ MCRB Master CLK Adjustment (MCRBマスターCLK調整)

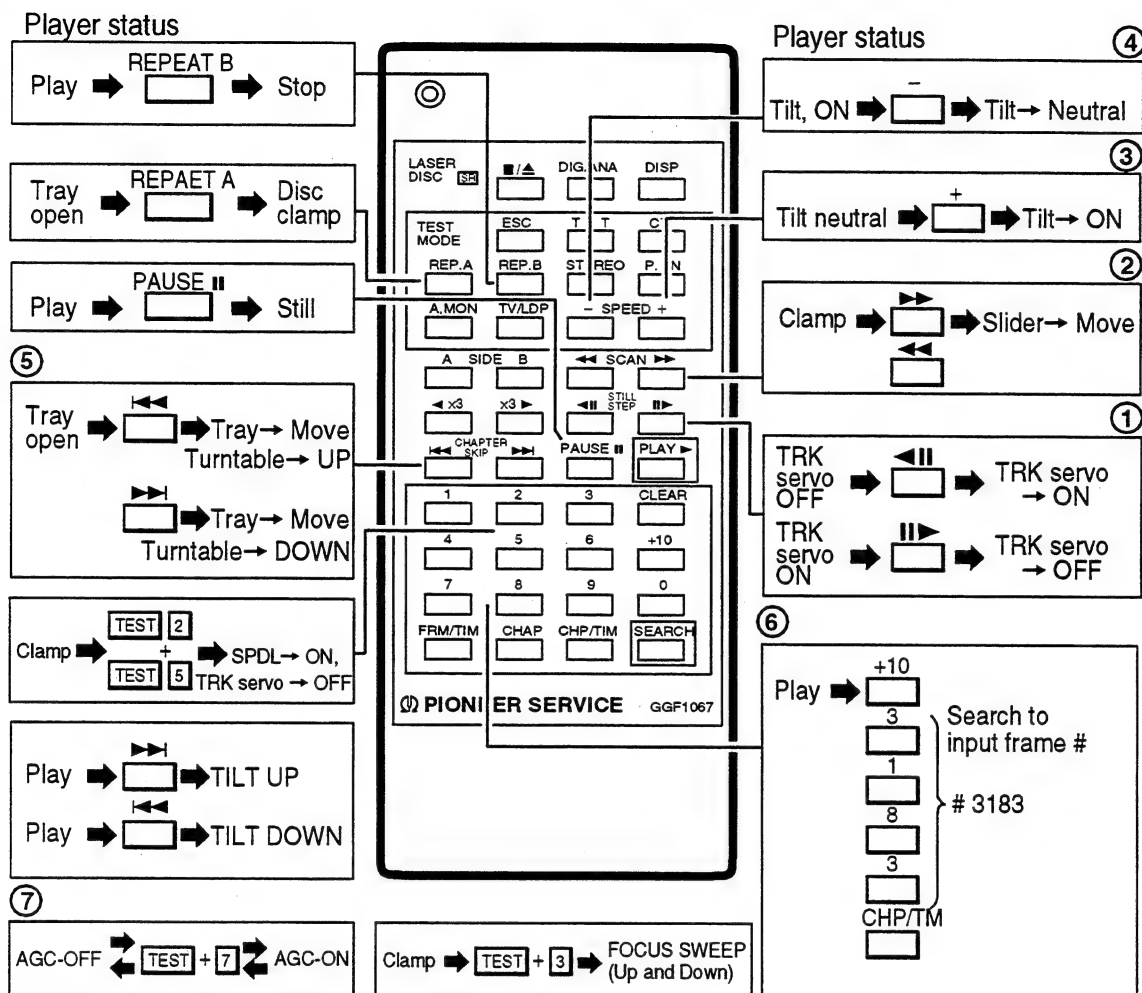


⑧ MCRB Inverter Burst Adjustment (MCRB反転バースト調整)

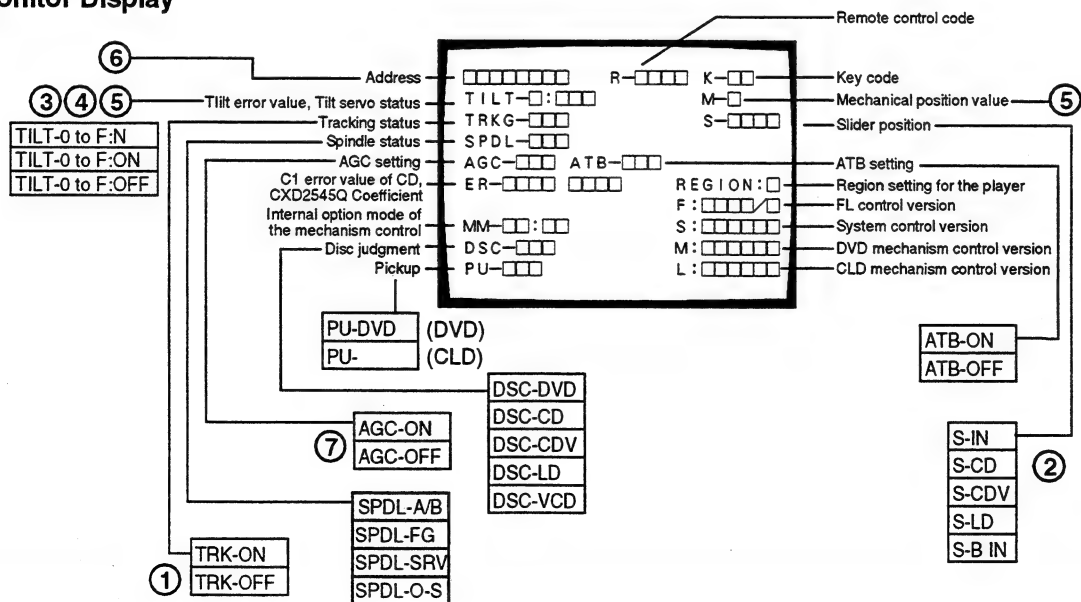


6.7 OPERATIONS IN THE TEST MODE (テストモード時のサービスリモコン操作方法)

■ Test Mode Remote Control Unit (GGF1067)



■ TV Monitor Display

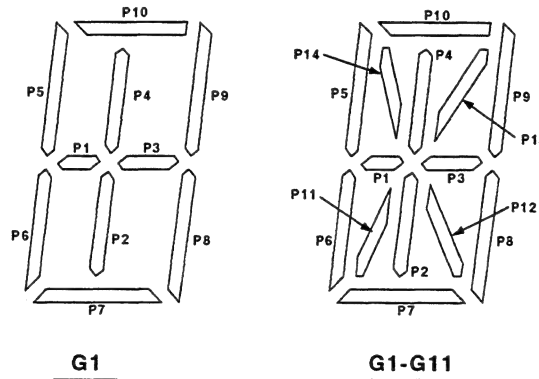
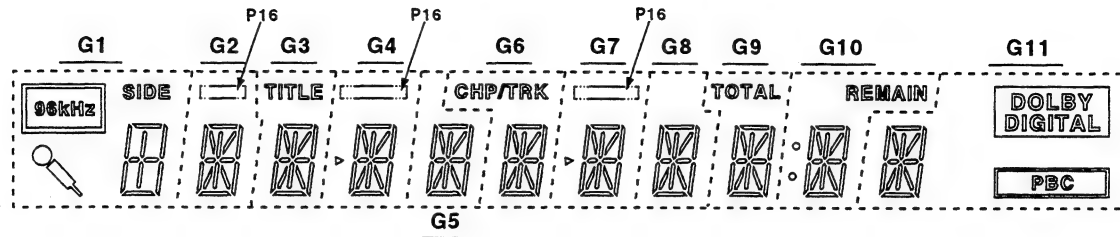


7. GENERAL INFORMATION

7.1 DISPLAY

■ VAW1042 (FLPB ASSY : V101)

• FL DISPLAY



• ANODE AND GRID ASSIGNMENT

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11
P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1	P1
P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
P4	P4	P4	P4	P4	P4	P4	P4	P4	P4	P4	P4
P5	P5	P5	P5	P5	P5	P5	P5	P5	P5	P5	P5
P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6
P7	P7	P7	P7	P7	P7	P7	P7	P7	P7	P7	P7
P8	P8	P8	P8	P8	P8	P8	P8	P8	P8	P8	P8
P9	P9	P9	P9	P9	P9	P9	P9	P9	P9	P9	P9
P10	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10	P10
P11		P11	P11	P11	P11	P11	P11	P11	P11	P11	P11
P12	96kHz	P12	P12	P12	P12	P12	P12	P12	P12	P12	P12
P13		P13	P13	P13	P13	P13	P13	P13	P13	P13	P13
P14		P14	P14	P14	P14	P14	P14	P14	P14	P14	P14
P15											
P16	SIDE	P16	TITLE	P16		CHP/TRK	P16		TOTAL	REMAIN	DOLBY DIGITAL

• PIN ASSIGNMENT

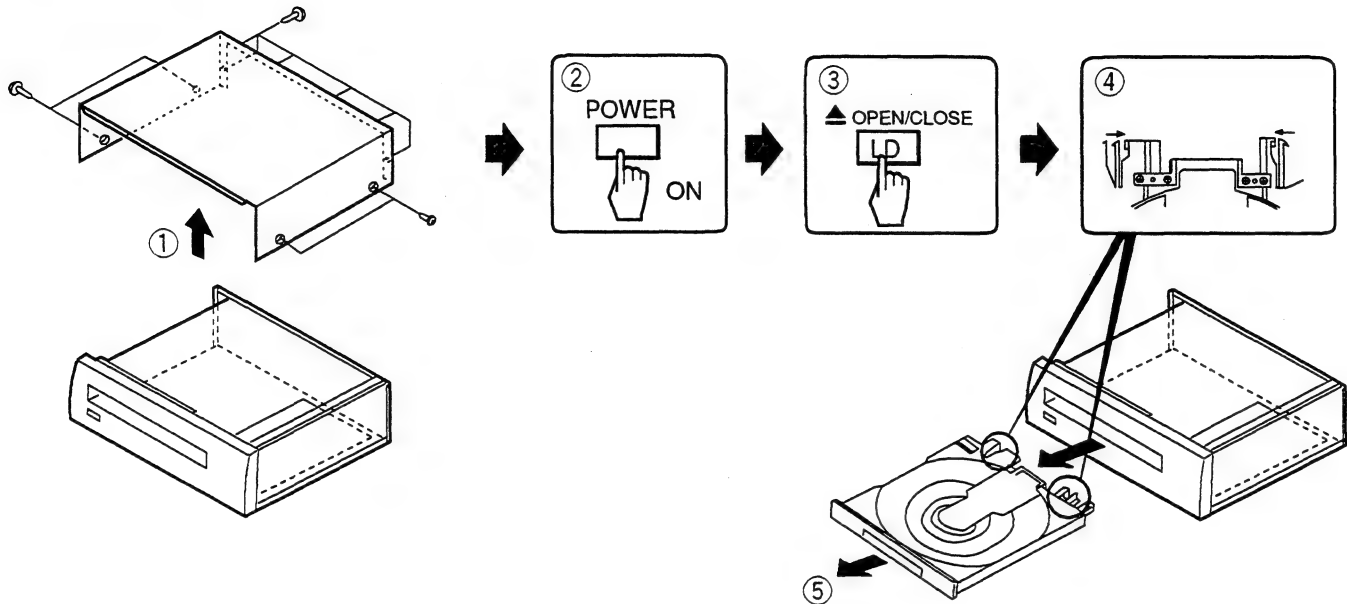
Pin No.	1	2	3	4	5	6	7	8	9	10	11-24	25	26	27	28	29	30	31	32
Assignment	F1	F1	NP	NL	P16	P15	P14	P13	P12	P11	NL	P10	P9	P8	P7	P6	NL	P5	P4
Pin No.	33	34	35	36-40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
Assignment	P3	P2	P1	NL	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1	NL	NP	F2	F2

F1, F2 : Filament G1-G11 : Grid P1-P16 : Anode NP : No Pin NL : No Lead

7.2 DISASSEMBLY/ASSEMBLY (分解/組立の手順)

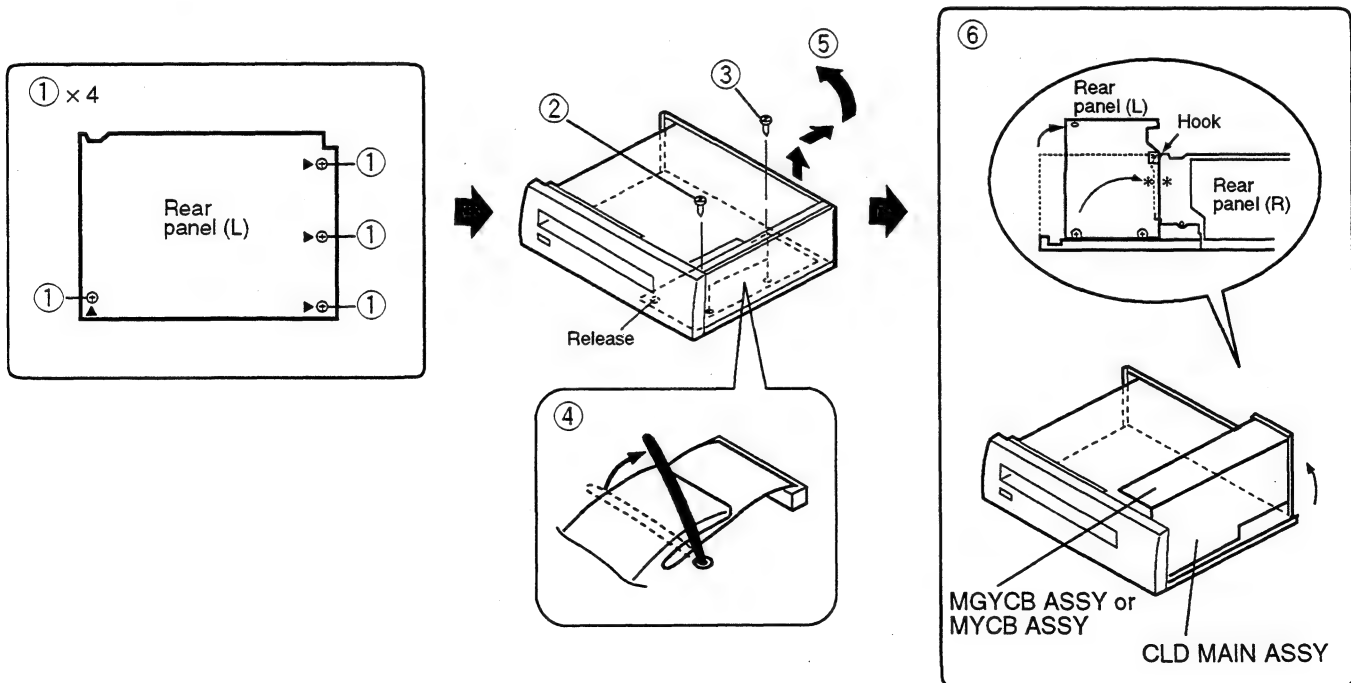
(1) DISC TRAY

- Disassembly : ① → ② → ③ → ④ → ⑤
- Assembly : ⑤ → ①



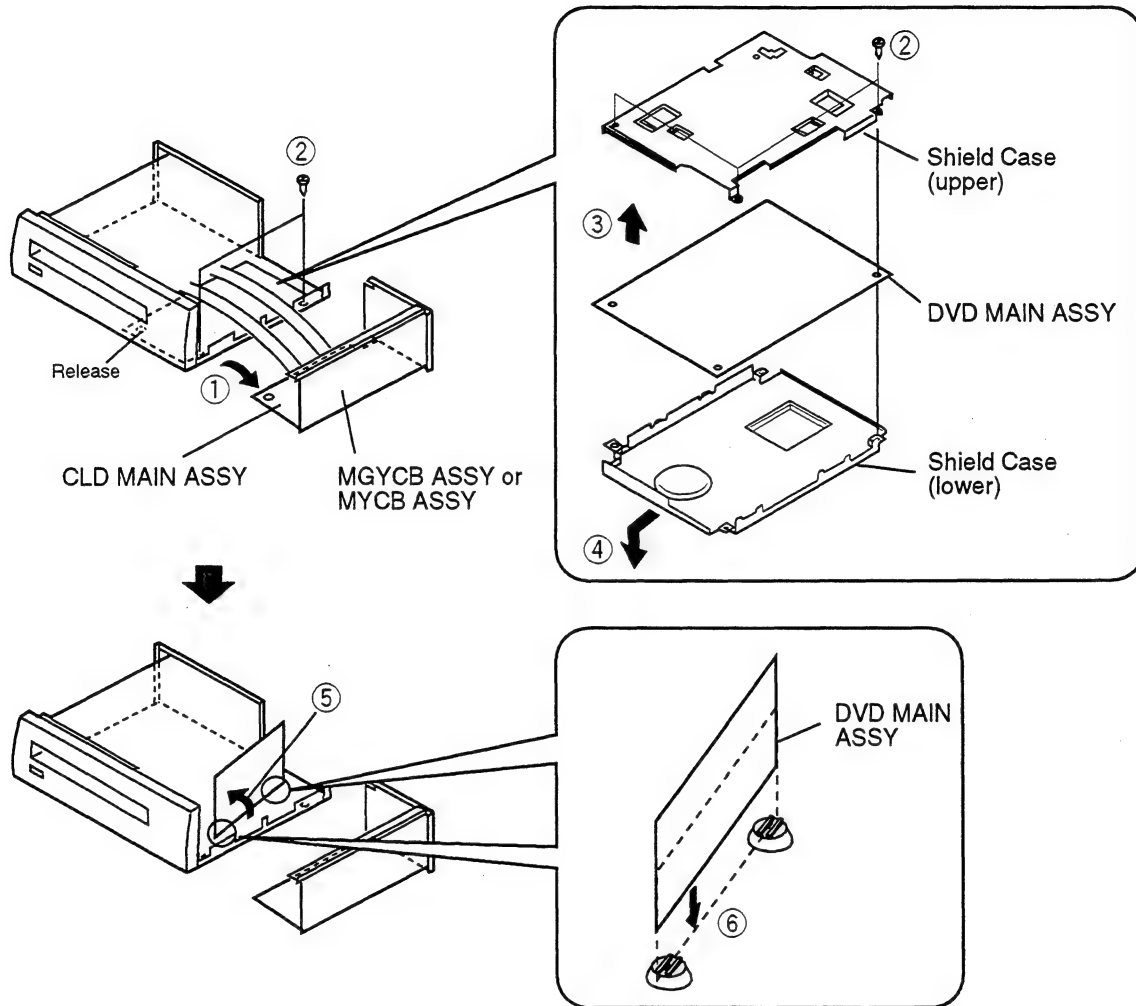
(2) CLD MAIN ASSY

- Disassembly : ① → ② → ③ → ④ → ⑤ → ⑥
- Assembly : ⑥ → ⑤ → ④ → ③ → ② → ①



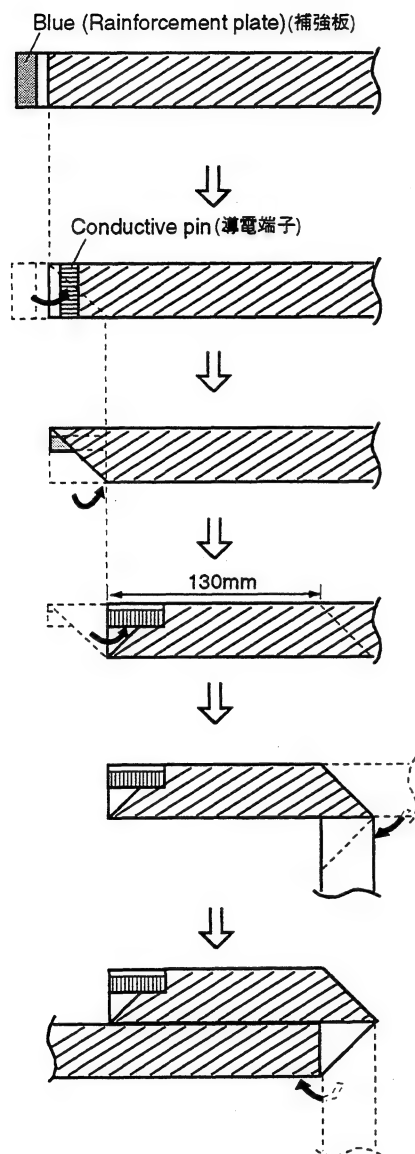
(3) DVD MAIN ASSY

- Disassembly : ①→②→③→④→⑤→⑥
- Assembly : ⑥→④→③→②→①

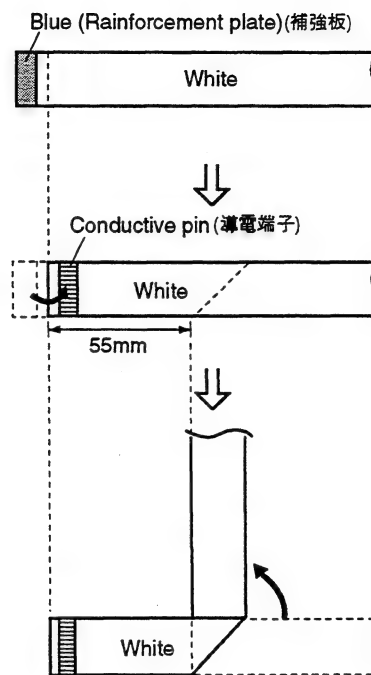



7.3 HOW TO BEND THE FLEXIBLE CABLE (フレキシブルケーブルの折り方)

(1) THE FLEXIBLE CABLE FOR CLD CARRIAGE ASSY

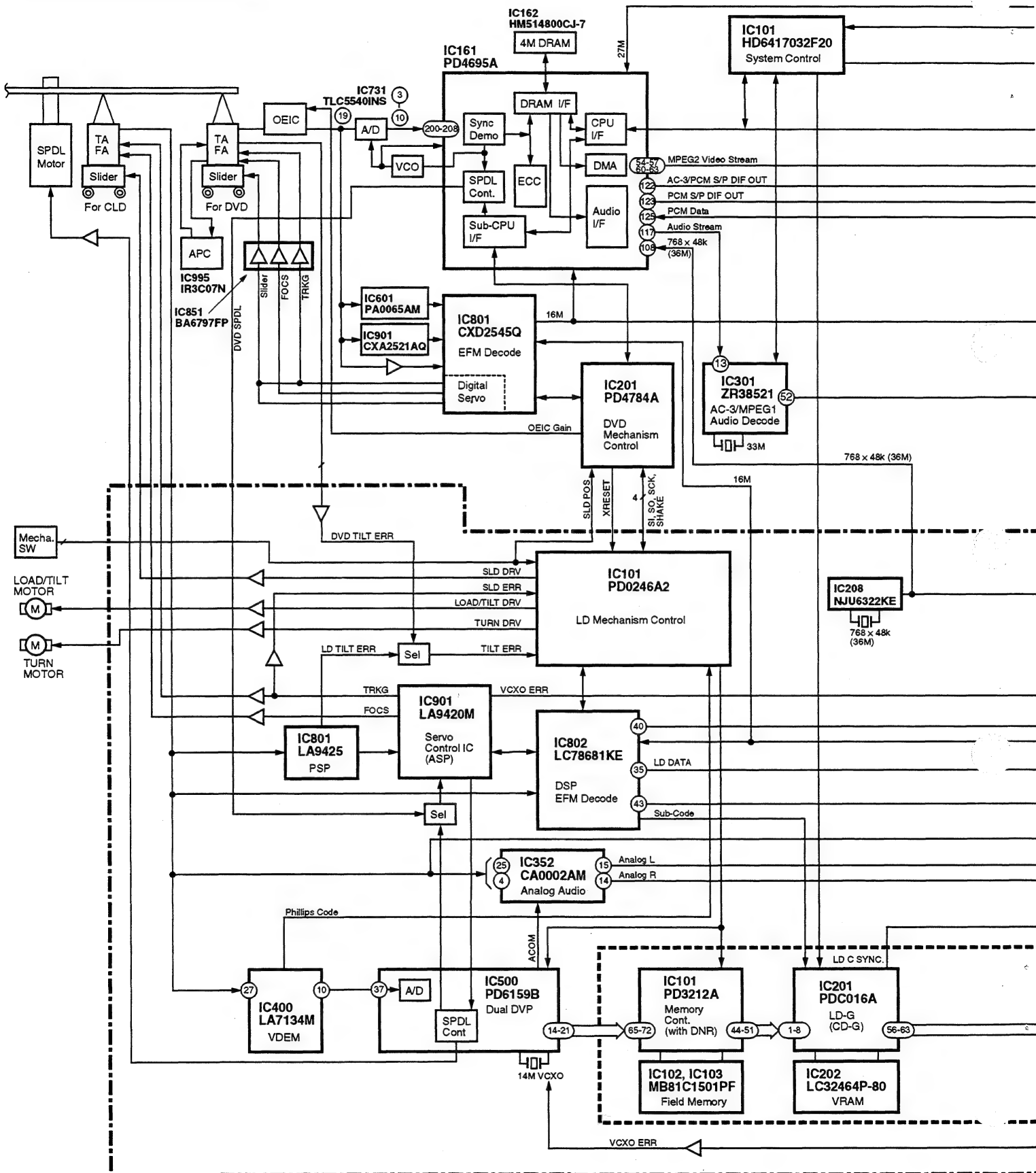


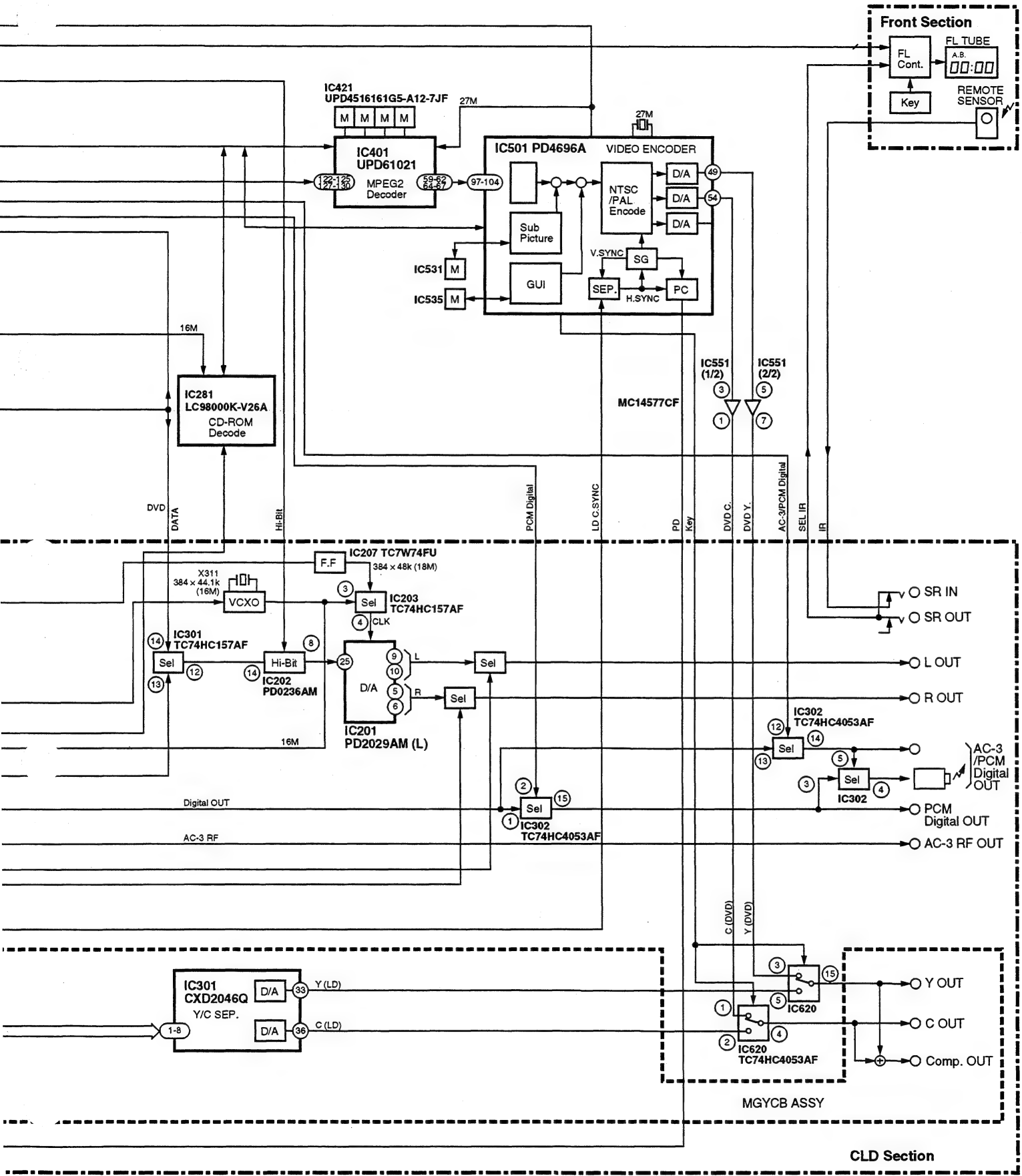
(2) THE FLEXIBLE CABLE FOR DVD CARRIAGE ASSY



 : Part rating indication side (部品定格表示側)

7.4 BLOCK DIAGRAM

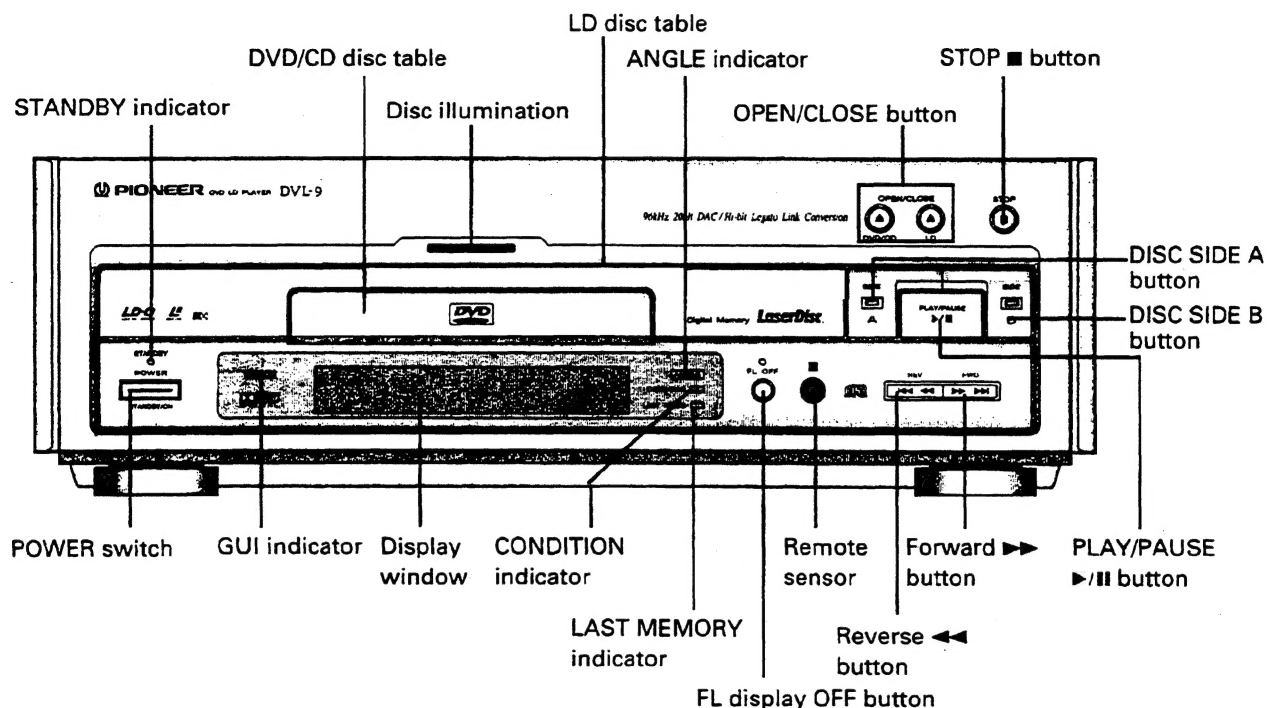




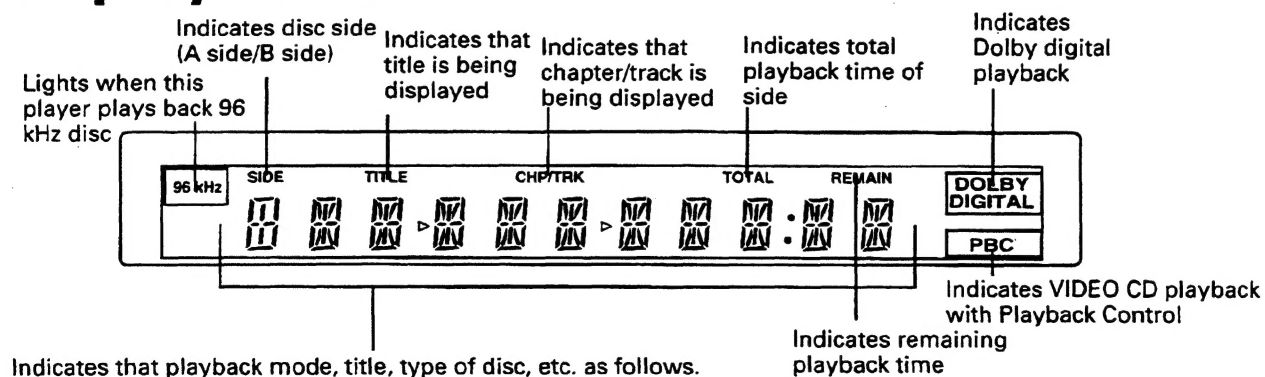
8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front panel

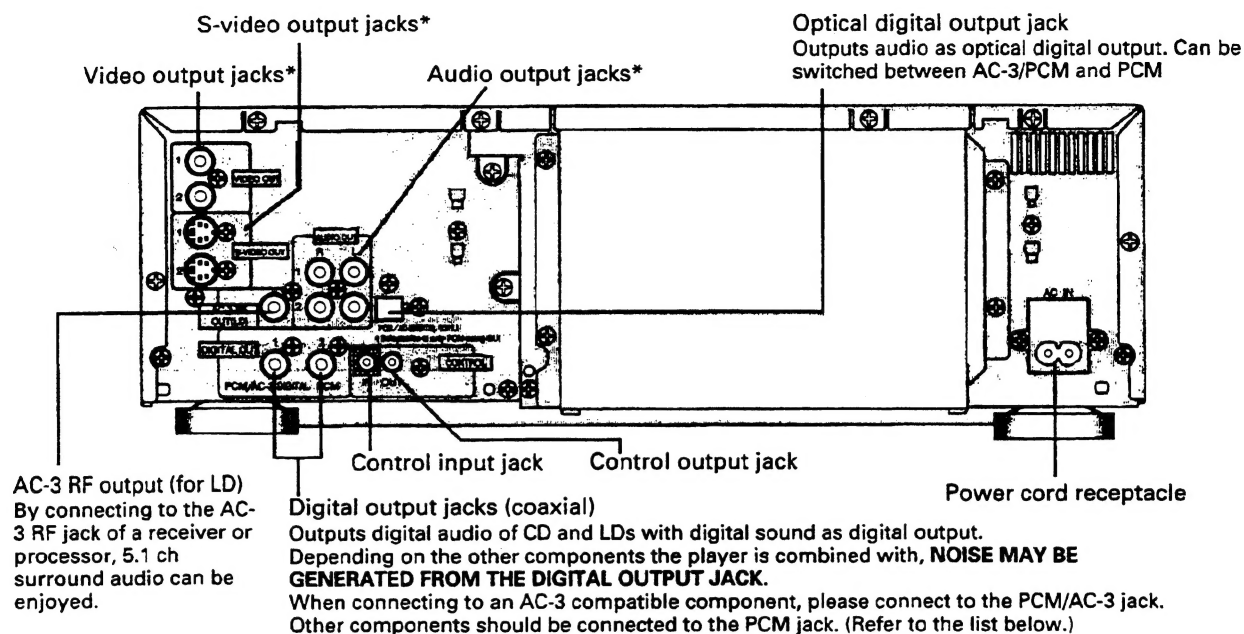


Display window



LD	Laser Disc	CLOSE	Disc table is closing
CD	Compact disc	PLAY	Playback
CDV	CD video	STOP	Stop
DVD	DVD	PAUSE	Pause
VC	VIDEO CD	NO DISC	No disc
OPEN	Disc table is opening or is open	- OFF -	Power is turned off
		SIDE A(B)	SIDE A(B): Disc side

■ Rear panel

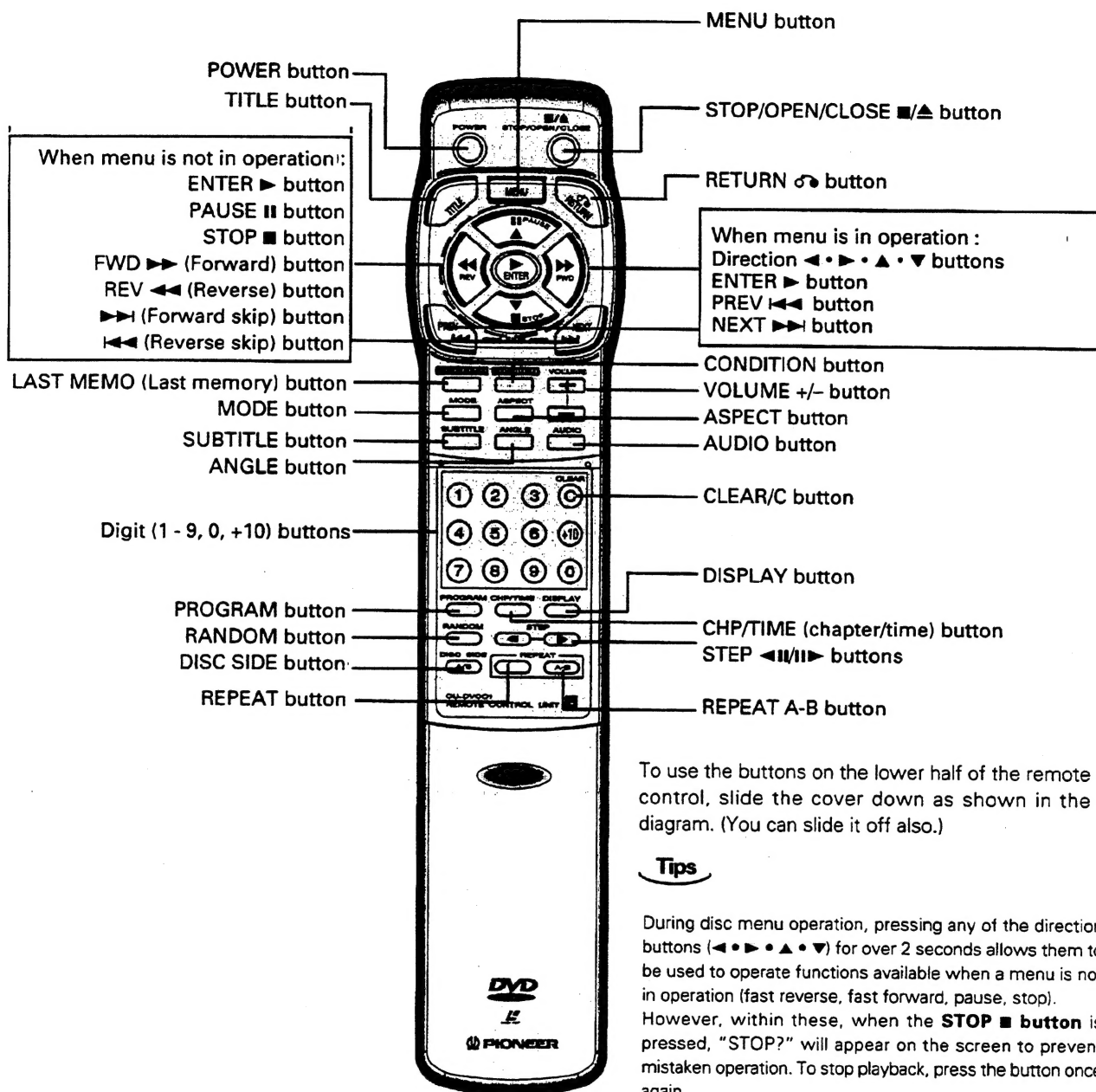


* There are two jacks, allowing 2 systems to be connected at the same time. For example, one can be connected to the TV and the other can be connected to an AV amplifier.

Your home amplifier	Regular AV amplifier	Coaxial	Connect to PCM jack
		Optical	Connect to PCM/AC-3 DIGITAL (OPT) output jack and select PCM using the menu
	AC-3 compatible amplifier	Coaxial	Connect to PCM/AC-3 DIGITAL jack
		Optical	Connect to PCM/AC-3 DIGITAL (OPT) output jack and select AC-3/PCM using the menu

RDM	Random playback	STEREO	Stereo
PROGRAM	Program mode	MENU	Menu mode
R-TRK	Track/chapter repeat playback	TITLE	Title menu
R-A	Start point of 2 point repeat playback	CHAPTER	Chapter menu
R-AB	2-point repeat playback	SUB-TITLE	Sub-title menu
R-TTL	Title repeat playback	SETUP	Set-up menu
R-SID	LD both-side repeat playback	ANGLE	Angle menu
COND MEMORY	Condition memory	AUDIO	Audio menu
LAST MEMORY	Last memory playback	DOLBY DIGITAL 5.1CH	Dolby digital surround 5.1 ch
CINEMA 1	Cinema 1 mode	PCM 96K	96K PCM audio
CINEMA 2	Cinema 2 mode	PCM 48K	48K PCM audio
ANIMATION	Animation mode	MPEG AUDIO	MPEG1 or MPEG2 audio
STANDARD	Standard mode		

■ Remote control



8.2 SPECIFICATIONS

General

System DVD system, LaserVision Disc system,
VIDEO CD system and Compact Disc digital audio system
Power requirements: AC 110-120/220-240 V, 50/60 Hz
Power consumption 65 W
Weight 9.1 kg
Dimensions 440 (W) x 463 (D) x 140 (H) mm
(Not including protruding cables, etc.)
Operating temperature +5°C to +35°C (+36°F to +96°F)
Operating humidity 5% to 85% (no condensation)

S-Video Outputs (2 pairs)

1 is the S-VIDEO output and *2* is the S2-VIDEO output.
Y (luminance) - Output level 1 Vp-p (75 Ω)
C (color) - Output level 286 mVp-p (75 Ω)
Jacks S-VIDEO jacks

Video Outputs (2 pairs)

Output level 1 Vp-p (75Ω loaded, negative sync)
Jacks RCA jacks

Audio Outputs (2 pairs)

Output level
Analog audio output 200 mVrms (1 kHz, 40%)
Digital audio output 200 mVrms (1 kHz, -20 dB)
Number of channels 2
Jacks RCA jacks

Digital audio characteristics (DVD fs = 48 kHz)

Frequency response	4 Hz to 22 kHz (DVD fs: 48 kHz) 4 Hz to 20 kHz (LD, CD)
S/N ratio	115 dB (EIAJ)
Dynamic range	97 dB (EIAJ)
Total harmonic distortion	0.0028 %
Wow and flutter	Limit of measurement (±0.001% W. PEAK) or lower (EIAJ)

Other Terminals

Optical digital output (PCM/AC-3) Optical digital jack
Coaxial digital output (PCM/AC-3) RCA type pin jack
Coaxial digital output (PCM) RCA type pin jack
AC-3RF output (for LD) RCA type pin jack
CONTROL IN Minijack (3.5mm dia.)
CONTROL OUT Minijack (3.5mm dia.)

Accessories

Remote control unit 1
AAA/R03 dry cell batteries 2
Audio cord 1
Video cord 1
Power cord 2
Operating Instructions 1
Warranty card 1

NOTE:

The specifications and design of this product are subject to change without notice, due to improvement.

• Accessories

